

Environmental Impact Assessment Report

Lemanaghan Wind Farm,
Co. Offaly

Chapter 13 Cultural Heritage



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GLOSSARY OF TERMS

Term	Definition
Borrow Pits	A pit resulting from the excavation of material used in construction on the Proposed Wind Farm
National Inventory of Architectural Heritage	An Irish state initiative under the Department of Housing, Local Government and Heritage that identifies, records, and evaluates ¹ post-1700, non-archaeological buildings and structures of significance.
National Monuments Acts 1930 to 2004	Primary Irish Legislation protecting archaeological heritage, covering monuments, sites and objects.
Photomontage	These are visualisations that superimpose an image of a proposed project upon a photograph or series of photographs or series of photographs from a specific location, termed the ‘viewpoint’.
Register of Historic Monuments (1997 act)	A statutory list maintained by the Minister for the Arts, Heritage, Gaeltacht and the Islands
Test Trenching	A shallow, excavated trench to examine soil, rock and groundwater conditions, or to identify archaeological features prior to construction.

The Granada Convention	A legally binding Council of Europe treaty defining and protecting Europe's architectural heritage. It emphasises the importance of inventories in underpinning conservation policies.
Trial Pit	A shallow, excavated hole used in geotechnical investigations to inspect soil, rock and groundwater conditions prior to construction.
Viewpoint	This is typically in reference to a select location where a photomontage has been captured, which is represented in the Photomontage Booklet.
Zone of Theoretical Visibility	A map (digitally produced) showing areas of land in which the proposed development is theoretically visible (based on topography rather than vegetation screening)

GLOSSARY OF ACRONYMS

Acronym	Definition
ASI	Archaeological Survey of Ireland
ACA	Architectural Conservation Areas
CMP	Conservation Management Plan
CH	Cultural Heritage
DCHG	Department of Culture, Heritage and the Gaeltacht
DHLGH	Department of Housing, Local Government and Heritage
ESRI	Economic and Social Research Institute
GIS	Geographical Information Systems
HIA	Heritage Impact Assessment
HEV	Historic Environment Viewer
IAWU	Irish Archaeological Wetland Unit
LVIA	Landscape and Visual Impact Assessment
NFC	National Folklore Collection
NIAH	National Inventory of Architectural Heritage
NMS	National Monuments Service
NMI	National Museum of Ireland
OCDP	Offaly County Development Plan
OS	Ordnance Survey
OUV	Outstanding Universal Value
OUV	Outstanding Universal Value

OHL	Overhead lines
RMP	Record of Monuments and Places
RPS	Record of Protected Structures
SMR	Sites and Monuments Record
UNESCO	United Nations Educational, Scientific and Cultural Organisation
VP	Viewpoint
WCDP	Westmeath County Development Plan
WHS	World Heritage Site
ZTV	Zone of Theoretical Visibility

13. CULTURAL HERITAGE

13.1 Introduction

This cultural heritage chapter was prepared by Tobar Archaeological Services Ltd. It presents the results of an archaeological, architectural and cultural heritage impact assessment of the construction, operation and decommissioning of the proposed Lemanaghan Wind Farm, the Proposed Project, located at Lemanaghan and adjacent townlands in Co. Offaly.

The purpose of this chapter is to assess the potential direct and indirect effects of the Proposed Project on the surrounding archaeological, architectural and cultural heritage landscape. The assessment is based on both a desktop review of the available cultural heritage and archaeological data, and a field inspection of the Proposed Project footprint. An assessment of potential effects, including cumulative effects, is presented.

As detailed in Section 1.1.1 of Chapter 1 Introduction, for the purposes of this EIAR, the various project components are described and assessed using the following references: 'Proposed Project', 'Proposed Wind Farm', 'Proposed Grid Connection', 'Proposed Project site' or 'site'.

13.1.1 Proposed Project

The Proposed Wind Farm will comprise 15 no. wind turbines with a tip height of 220 metres (m), access roads and entrance(s), borrow pits, peat deposition areas, internal electrical cabling, temporary construction compounds and a permanent meteorological mast.

The Proposed Grid Connection includes for an onsite 220kV electricity substation and 0.8km of overhead line (OHL cabling) (0.4km of double loop-in/loop-out from the proposed onsite 220kV substation to the existing OHL) connecting the proposed onsite 220kV substation to the national electricity grid via the existing Shannonbridge-Maynooth 220kV OHL located in the townland of Cooldorragh, Co. Offaly.

A full description of all elements of the Proposed Project is detailed in Chapter 4 of this EIAR.

13.1.2 Location and Topography

The Proposed Project is located approximately 3 kilometres (km) northeast of Ferbane and approximately 2.5km southwest of the village of Ballycumber in Co. Offaly. The Proposed Wind Farm is located in a peatland setting, comprising a mixture of bare cutaway peat, re-vegetated bare peat, degraded raised bog, scrub, low woodland and remnants of high bog. Current land-use on the Proposed Wind Farm comprises natural recolonisation of degraded bog previously used for industrial peat extraction, with ongoing third-party turbary within the site. The site is approximately 5.4km in length at its longest point and 4.9km in width at its widest point; encompassing an area of approximately 1,258ha.

The Proposed Grid Connection includes 0.8km (0.4km of double looped) OHL cabling from the proposed onsite 220kV substation, in the townland of Cooldorragh, Co. Offaly, and will require a break in the existing Shannonbridge-Maynooth 220kV OHL to facilitate the Proposed Project connection to the national electricity grid. Current land use along the Proposed Grid Connection comprises peatland and pastures.

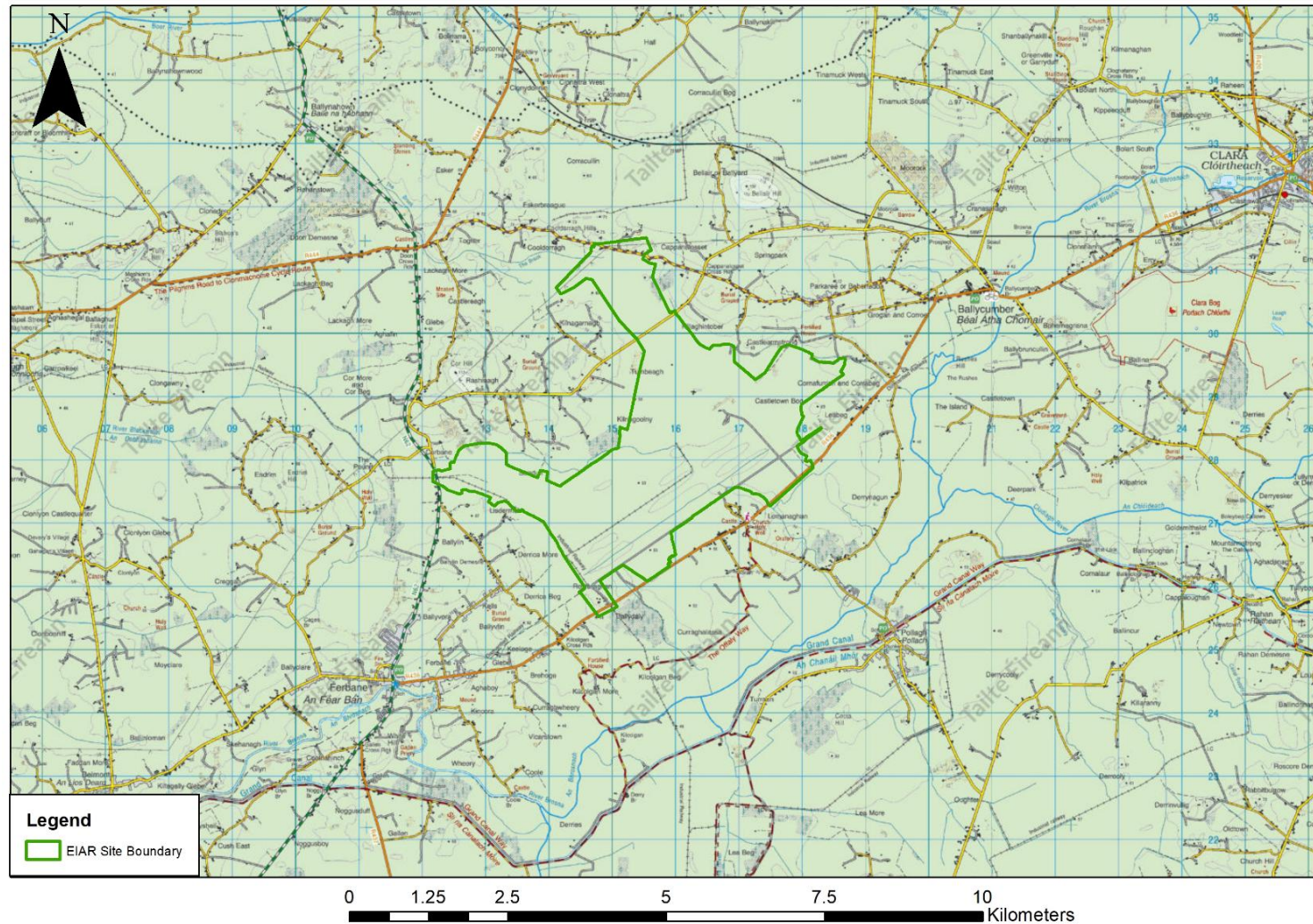


Figure 13-1: Site location.

13.1.3 Statement of Authority

This chapter of the Environmental Impact Assessment Report (EIAR) has been prepared by Miriam Carroll of Tobar Archaeological Services Ltd. Miriam graduated from University College Cork in 1998 with a Master's degree in Methods and Techniques in Irish Archaeology. She is licensed by the Department of Housing, Local Government and Heritage (DHLGH) to carry out excavations and is a member of the Institute of Archaeologists of Ireland. Miriam has been working in the field of archaeology since 1994 and has undertaken numerous projects for both the private and public sectors including excavations, site assessments (EIAR) and surveys. Miriam Carroll is a director of Tobar Archaeological Services which has been in operation for over 20 years.

13.1.4 Relevant Guidance and Legislation

13.1.4.1 Guidance

The assessment of the potential effects of the Proposed Project on cultural heritage has been carried out in accordance with the various planning policies and strategy guidance detailed in Section 1.2 in Chapter 1 of this EIAR and the following:

- › Architectural Heritage Protection Guidelines for Planning Authorities (Department of Arts, Heritage and the Gaeltacht, 2011).
- › Department of Arts, Heritage, Gaeltacht and the Islands, 1999, Framework and Principles for the Protection of the Archaeological Heritage, 1999.
- › Guidance on Setting and the Historic Environment, Historic Environment Division, February 2018.
- › Offaly County Development Plan 2021-2027.
- › Westmeath County Development Plan 2021-2027
- › Guidance and Toolkit for Impact Assessments in a World Heritage Context (UNESCO, 2022)
- › Guidance for Wind Energy Projects in a World Heritage Context (UNESCO, 2022)
- › Guidelines for Cultural Heritage Impact Assessment of TII National Road and Greenway Projects (TII September 2025).

13.1.4.2 Legislation

Archaeological monuments are safeguarded through national and international policy, which is designed to secure the protection of the cultural heritage resource. This is undertaken in accordance with the provisions of the European Convention on the Protection of the Archaeological Heritage (Valletta Convention). This was ratified by Ireland in 1997.

Both the National Monuments Acts 1930 to 2004 and relevant provisions of the Cultural Institutions Act 1997 are the primary means of ensuring protection of archaeological monuments, the latter of which includes all man-made structures of whatever form or date. There are a number of provisions under the National Monuments Acts which ensure protection of the archaeological resource. These include the Register of Historic Monuments (1997 Act) which means that any interference to a monument is illegal under that Act. All registered monuments are included on the Record of Monuments and Places (RMP).

The Record of Monuments and Places (RMP) was established under Section 12 (1) of the National Monuments (Amendment) Act 1994 and consists of a list of known archaeological monuments and accompanying maps. The Record of Monuments and Places afford some protection to the monuments entered therein. Section 12 (3) of the 1994 Amendment Act states that any person proposing to carry

out work at or in relation to a recorded monument must give notice in writing to the Minister (Environment, Heritage and Local Government) and shall not commence the work for a period of two months after having given the notice. All proposed works, therefore, within or around any archaeological monument are subject to statutory protection and legislation (National Monuments Acts 1930-2004).

The term ‘national monument’ as defined in Section 2 of the National Monuments Act 1930 means a monument *‘the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic or archaeological interest attaching thereto’*. National monuments in State care include those which are in the ownership or guardianship of the Minister for Arts, Heritage and the Gaeltacht. Section 5 of the National Monuments Act (1930) allows owners of other national monuments to appoint the Minister for the Arts, Heritage and the Gaeltacht or the relevant local authority as guardian of such monuments, subject to their consent. This means in effect that while the property of such a monument remains vested in the owner, its maintenance and upkeep are the responsibility of the State. Some monuments are also protected by Preservation Orders and are also regarded as National Monuments. National Monuments also includes (but not so as to limit, extend or otherwise influence the construction of the foregoing general definition) every monument in Saorstát Éireann to which the Ancient Monuments Protection Act, 1882, applied immediately before the passing of this Act, and the said expression shall be construed as including, in addition to the monument itself, the site of the monument and the means of access thereto and also such portion of land adjoining such site as may be required to fence, cover in, or otherwise preserve from injury the monument or to preserve the amenities thereof.

The Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023 will replace the existing National Monuments Acts (1930-2014) when it is brought into force by Ministerial Order. The majority of provisions of this Act have not yet come into force. One Commencement Order (Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023 (Commencement) Order 2024 (S.I. No. 252 of 2024)) relating to Sections 1-6 and Section 7 insofar as relates to the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999 (other than section 5) came into effect on the 31st May 2024. These provisions relate to World Heritage Property in the State, inventories, the protection of certain records, the promotion of heritage, and the issuing of statutory guidance. Certain related and supporting provisions concerning implementation and enforcement are also commenced (www.archaeology.ie/news). The provisions now in force allow for the establishment and maintenance of inventories of relevant things of archaeological interest, architectural heritage, and wrecks of archaeological or historic interest. This bolsters the status of existing inventories recording sites of archaeological, historic and architectural interest, both on land and under the sea. It also ensures that legal protection is afforded to certain records or archaeological objects in the event that a person or company in possession of such records is no longer in a position to maintain them, which further strengthens existing practices (<https://www.gov.ie/>).

Under the Heritage Act (1995) architectural heritage is defined to include *‘all structures, buildings, traditional and designed, and groups of buildings including streetscapes and urban vistas, which are of historical, archaeological, artistic, engineering, scientific, social or technical interest, together with their setting, attendant grounds, fixtures, fittings and contents...’*. A heritage building is also defined to include *‘any building, or part thereof, which is of significance because of its intrinsic architectural or artistic quality or its setting or because of its association with the commercial, cultural, economic, industrial, military, political, social or religious history of the place where it is situated or of the country or generally’*.

13.1.4.3 Granada Convention

The Council of Europe, in Article 2 of the 1985 Convention for the Protection of the Architectural Heritage of Europe (Granada Convention), states that *‘for the purpose of precise identification of the monuments, groups of structures and sites to be protected, each member State will undertake to maintain inventories of that architectural heritage’*. The Granada Convention emphasises the importance of inventories in underpinning conservation policies.

The National Inventory of Architectural Heritage (NIAH) was established in 1990 to fulfil Ireland's obligations under the Granada Convention, through the establishment and maintenance of a central record, documenting and evaluating the architectural heritage of Ireland. Article 1 of the Granada Convention establishes the parameters of this work by defining 'architectural heritage' under three broad categories of Monument, Groups of Buildings, and Sites:

- › Monument: all buildings and structures of conspicuous historical, archaeological, artistic, scientific, social or technical interest, including their fixtures and fittings;
- › Group of buildings: homogeneous groups of urban or rural buildings conspicuous for their historical, archaeological, artistic, scientific, social or technical interest, which are sufficiently coherent to form topographically definable units;
- › Sites: the combined works of man and nature, being areas which are partially built upon and sufficiently distinctive and homogenous to be topographically definable, and are of conspicuous historical, archaeological, artistic, scientific, social or technical interest.

The Council of Europe's definition of architectural heritage allows for the inclusion of structures, groups of structures and sites which are considered to be of significance in their own right, or which are of significance in their local context and environment. The NIAH believes it is important to consider the architectural heritage as encompassing a wide variety of structures and sites as diverse as post boxes, grand country houses, mill complexes and vernacular farmhouses.

13.1.4.4 **Turf Development Act 1998**

Section 56 of the Turf Development Act 1998 pertains to the protection of the environment and archaeological heritage. It mandates that both the Company (formed under the Act) and its subsidiaries ensure their activities are conducted in a manner that appropriately safeguards these aspects. This includes avoiding damage to the environment and preserving archaeological sites found within their operational areas.

13.1.4.5 **Offaly County Development Plan 2021-2027**

The Offaly County Development Plan 2021-2027 (OCDP) was adopted on 10th September 2021 and came into effect 22nd October 2021.

The OCDP outlines a number of policies and objectives relating to archaeology and built heritage with the relevant policies, detailed below. Please see Section 2.6.4.1 of Chapter 2 for further detail on the OCDP.

13.1.4.5.1 **Policies**

Protected Structures

BHP-01 It is Council policy to ensure the protection, sympathetic and sensitive modification, alteration, extension or reuse of protected structures or parts of protected structures, and the immediate surrounds included and proposed for inclusion in the Record of Protected Structures that are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest, together with the integrity of their character and setting.

BHP-02 It is Council policy to ensure the protection of the curtilage of protected structures or proposed protected structures and to prohibit inappropriate development within the curtilage or attendant grounds of a protected structure which would adversely impact on the special character of the protected structure including cause loss of or damage to the special character of the protected structure and loss of or damage to, any structures of architectural heritage value within the curtilage of the protected structure.

BHP-03 It is Council policy to promote best practice and the use of skilled specialist practitioners in the conservation of, and any works to, protected structures. Method statements should make reference to the Department of Culture, Heritage and the Gaeltacht's Advice Series on how best to repair and maintain historic buildings.

BHP-04 It is Council policy to favourably consider the change of use of any structure included on the Record of Protected Structures provided such a change of use does not adversely impact on its intrinsic character and is in accordance with the proper planning and sustainable development of the area.

BHP-05 It is Council policy to actively encourage uses that are compatible with the character of protected structures.

BHP-06 It is Council policy to retain where practicable a protected structure which has been damaged by fire, and to retain those elements of that structure that have survived (either in whole or in part) and that contribute to its special interest.

BHP-07 It is Council policy to prohibit the demolition of any protected structure unless the Council is satisfied that exceptional circumstances exist. The demolition of a protected structure with the retention of its façade will likewise not generally be permitted.

BHP-08 It is Council policy to require an Architectural Heritage Assessment Report, as described in Appendix B of the Architectural Heritage Protection, Guidelines for Planning Authorities, Department of Culture, Heritage and the Gaeltacht (2013), to accompany all applications involving a protected structure.

BHP-09 It is Council policy to advise owners of protected structures in preparation of funding applications under Built Heritage Scheme of the Historic Structures Fund.

BHP-10 It is Council policy to ensure that in the event of a planning application being granted for development within the curtilage of a protected structure, the proposed works to the protected structure should occur, where appropriate, in the first phase of the development to prevent endangerment, abandonment and dereliction of the structure.

BHP-11 It is Council policy to ensure that measures to upgrade the energy efficiency of Protected Structures and historic buildings are sensitive to traditional construction methods and materials and do not have a detrimental physical, aesthetic or visual impact on the structure. They should follow the principles and direction given in the Department of Arts, Heritage and the Gaeltacht's publication Energy Efficiency in Traditional Buildings.

Vernacular Buildings

BHP-15 It is Council policy to encourage the protection, retention, appreciation and appropriate revitalisation of the vernacular heritage of Offaly.

BHP-16 It is Council policy to consider the guidance in "The Thatched Houses of Kildare" and "Reusing Farm Buildings, A Kildare Perspective" published by Kildare County Council in assessing planning applications in County Offaly relating to thatched cottages and traditional farm buildings.

BHP-17 It is Council policy to preserve the character and setting (for example, gates, gate piers and courtyards) of vernacular buildings where deemed appropriate by the planning authority.

BHP-18 It is Council policy to seek the repair and retention of traditional timber and/or rendered shop fronts and pub fronts, including those that may not be protected structures.

BHP-19 It is Council policy to communicate and work with owners of thatch buildings regarding the availability of conservation grants and funding.

BHP-20 It is Council policy to encourage where appropriate the covering of thatch with metal, as a measure for the protection of buildings which are unoccupied and showing signs of considerable distress.

BHP-21 It is Council policy to support proposals to refurbish vernacular structures that are in a run down or derelict condition, provided that;

- Appropriate traditional building materials and methods are used to carry out repairs to the historic fabric; and
- Proposals for extensions to vernacular structures are reflective and proportionate to the existing building and do not erode the setting and design qualities of the original structure which make it attractive.

Industrial Heritage

BHP-22 It is Council policy to protect the industrial heritage of Offaly, including mills, historic industrial buildings, canals and historic bridges.

BHP-23 It is Council policy to utilise the information provided within Mills of County Offaly: An Industrial Heritage Survey (2009) when assessing development proposals for surviving industrial heritage sites.

BHP-24 It is Council policy to protect and enhance the built and natural heritage of the Grand Canal and ensure that development within its vicinity is sensitively designed and does not have a detrimental effect on the character of the canal, its built elements and its natural heritage values and that it adheres to the Waterways Ireland's Heritage Plan 2016-2020.

BHP-25 It is Council policy to encourage appropriate change of use and reuse of industrial buildings, provided such a change does not seriously impact on the intrinsic character of the structure and that all works are carried out in accordance with best conservation practice.

BHP-26 It is Council policy to seek the retention and appropriate repair/maintenance of the historic bridges and harbours of the county whether they are protected structures or not.

BHP-27 It is Council policy to restrict vehicular access onto public roads that were formerly towpaths and any development permitted with access off a towpath must be screened effectively with trees and hedging. In relation to planning applications for housing in the open countryside with access proposed off towpaths, applicants must demonstrate compliance with Policy SSP-27 as towpaths are located within Natural Heritage Areas and Areas of High Amenity.

Country Houses, Gardens and Demesnes

BHP-28 It is Council policy to encourage the protection, conservation, promotion and enhancement of Country Houses, Gardens and Demesnes in the county and support public awareness, enjoyment of and access to these sites where appropriate.

BHP-29 It is Council policy to encourage the conservation, preservation, restoration and protection in their original setting of mausoleums and monuments: follies, grottoes; garden buildings and other structures of particular beauty or historic, environmental, architectural or industrial significance.

BHP-30 It is Council policy to discourage development that would lead to a loss of, or cause damage to, the character, the principal components of, or the setting of Country Houses, Gardens and Demesnes.

BHP-31 It is Council policy to consider the "Guidance Notes for the Appraisal of Historic Gardens, Demesnes, Estates and their Settings" published by Cork County Council 2006 in the appraisal and

description of the impacts of proposed developments in County Offaly within or in close proximity to country houses and demesnes on historic designed landscapes, demesnes and gardens.

Archaeological Heritage

BHP-33 It is Council policy to support and promote the protection and appropriate management and sympathetic enhancement of the county's archaeological heritage within the Plan area, in particular by implementing the Planning and Development Act 2000 (as amended) and the National Monuments Act 1930 (as amended).

BHP-34 It is Council policy to seek to promote awareness of and access to archaeological sites in the county where appropriate.

BHP-35 It is Council policy to consult with the National Monuments Service of the Department of Culture, Heritage and the Gaeltacht (DCHG) in relation to archaeological sites within and/or adjoining a proposed development.

BHP-36 It is Council policy to facilitate the identification of important archaeological landscapes in the county.

BHP-37 It is Council policy that any development that may, due to its size, location or nature, have implications for archaeological heritage (including both sites and areas of archaeological potential / significance) shall be subject to an archaeological assessment. When dealing with proposals for development that would impact upon archaeological sites and/or features, there will be presumption in favour of the 'preservation in situ' of archaeological remains and settings, in accordance with Government policy. Where permission for such proposals is granted, the Planning Authority will require the developer to have the site works supervised by a licenced archaeologist.

BHP-38 It is Council policy to ensure that archaeological excavation is carried out according to best practice as outlined by the National Monuments Service, Department of Culture, Heritage and the Gaeltacht, the National Museum of Ireland and the Institute of Archaeologists of Ireland and to protect previously unknown archaeological sites and features, where they are discovered during development works.

BHP-39 It is Council policy to ensure the protection and preservation of underwater and terrestrial archaeological sites, both known and potential in riverine or lacustrine locations including wrecks such as the remains of bridges.

BHP-40 It is Council policy to require archaeological assessment, including underwater archaeological assessment where relevant, for such developments that due to their location, size or nature may have implications for archaeological heritage. Such developments include those that are located at or close to an archaeological monument or site, those that are extensive in terms of area (0.5 hectares or more) or length (1 kilometre or more and developments that require an Environmental Impact Statement.

Monastic Sites

BHP-41 It is Council policy to retain the nominated status of the area comprising the National Monument at Clonmacnoise, enclosing eskers, Mongans Bog, Clonmacnoise callows, Fin Lough and the limestone pavement at Clorhane as the "Clonmacnoise Heritage Zone" in accordance with the recommendations of the study of the area carried out by the Environmental Sciences Unit of Trinity College, Dublin as shown in Figure 10.7 of this Plan.

BHP-42 It is Council policy to investigate the potential of Durrow Demesne as a public amenity and tourism asset.

BHP-43 It is Council policy to support and promote the protection and appropriate management of all monastic sites in the county.

Mass Rocks and Holy Wells

BHP-44 It is Council policy to preserve, protect and, where necessary, enhance mass rocks and holy wells in the County.

Historic Military Fortifications and Castle Sites

BHP-45 It is Council policy to support and promote the protection and appropriate management of historic military fortifications and castle sites in the county.

Funding

BHP-46 It is Council policy to support the progression and delivery of projects that repair and conserve historic structures under the Historic Structures Fund, the Built Heritage Investment Scheme or other funding schemes as applicable.

Community Archaeology

BHP-47 It is the policy of the Council to support the concept of Community Archaeology and greater collaboration in promoting awareness, knowledge and understanding of local archaeological resources in County Offaly

13.1.4.5.2 **Objectives**

Protected Structures

BHO-01 It is an objective of the Council to review the Record of Protected Structures on an on-going basis and make additions, deletions and corrections as appropriate over the period of this Plan.

BHO-02 It is an objective of the Council to prepare a Buildings at Risk Register to prevent the endangerment of Protected Structures

Vernacular Buildings

BHO-04 It is an objective of the Council to identify and retain good examples of vernacular architecture and historic street furniture in situ, for example, cast-iron post boxes, water pumps, signage, street lighting, kerbing and traditional road and street surface coverings.

Archaeological Heritage

BHO-05 It is an objective of the Council to protect archaeological sites and monuments, and archaeological objects, which are listed in the Record of Monuments and Places, and to seek their preservation in situ (or at a minimum, preservation by record) through the planning process.

Monastic Sites

BHO-06 The Council acknowledges the nomination by the Government of Ireland, of two Monastic sites, Clonmacnoise in its own right and Durrow, as a suite of potential sites, on the tentative list for

inclusion to the UNESCO World Heritage sites list¹. It is an objective of the Council to explore the potential of further designating the Monastic Sites at Clonmacnoise and Durrow as prospective UNESCO World Heritage Sites.

In addition to the policies and objectives outlined above, the OCDP also notes a number of important monastic sites within the county for which Conservation Management Plans have been prepared. Those sites comprise Clonmacnoise, Lemanaghan, Durrow, Rahan and Killeigh, of which four (Clonmacnoise, Lemanaghan, Durrow and Rahan) are located within the 15km study area for National Monuments and those subject to a preservation order in this assessment. The OCDP states the following in relation to each of the four monastic sites in question.

Clonmacnoise

Clonmacnoise is one of Ireland's foremost national monuments and is of international importance as a spiritual, historic, archaeological and cultural centre. The unique atmosphere and attractiveness of Clonmacnoise derives not only from the monastic site itself but its relationship to the River Shannon and the Callows together with the sense of enclosure provided by the eskers. The effect is heightened by the unfolding of the site as it is approached either from the river or any of the three approach roads.

The Council is conscious of the fact that the interaction of all these elements contributes significantly to the impact of the area and that it is necessary to preserve and protect these fully in order to retain the unique and special character of Clonmacnoise. In addition to the monastic site, the area surrounding Clonmacnoise, including Mongans Bog, Fin Lough and Clonmacnoise Callows, are designated sites of international and national conservation importance. A Draft Management Plan for Clonmacnoise was prepared by the OPW in 2009. The Council will support the preparation and subsequent implementation of a new masterplan by the OPW and Department of Culture, Heritage and the Gaeltacht.

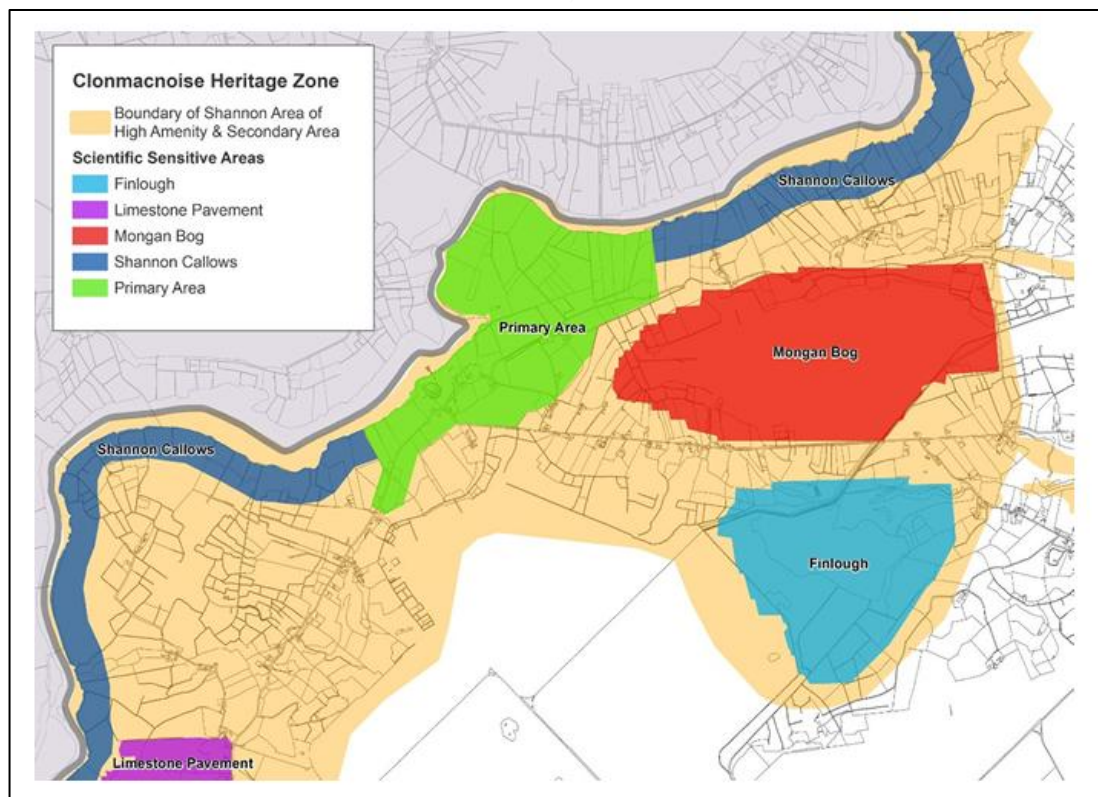


Figure 13-2: Extract from Figure 10.7 of the OCDP showing Clonmacnoise Heritage Zone.

¹ The monastic sites of Clonmacnoise and Durrow are not included in the current Tentative List for Ireland for inclusion as UNESCO World Heritage Sites (See Section 13.2.2.1.1 below).

Durrow

The remains of the monastery of Durrow are situated within Durrow Abbey Demesne. The monastery was founded by St. Columcille in 587 A.D. The site was used as a burial place for bishops, abbots and the nobles of the Midlands and Munster. The most elaborate feature at the site is the mid-ninth century high cross but it also has a number of other features of archaeological significance including the monastic enclosure, St. Columcille's Island and the Norman motte.

A conservation plan was commissioned by the Office of Public Works for Durrow Abbey and the surrounding thirty-one hectares of land acquired by the state in 2003. The Planning Authority will have regard to this Plan when assessing applications that are within this area or in close proximity to this area.

Rahan

The monastic site of Rahan lies in flat pastureland on the south bank of the Clodiagh River, seven miles west of Tullamore. The Grand Canal passes to the south of the site. In the fifth century Camelacus was appointed by St. Patrick to establish a monastery at Rahan. The monastic site was re-founded by St. Carthage in the sixth century. The monastery is contained within a large D-shaped enclosure with the Clodiagh River forming the straight section on its northern side. A Conservation Plan for Rahan has been prepared, and the Planning Authority will have regard to this Plan in relation to the assessing of applications in the vicinity of the site.

Lemanaghan

The historic complex at Lemanaghan, with its focus at the early monastic site dedicated to St Managhan, is situated on the R436 between Ballycumber and Ferbane at the junction of the road to Pollagh. These monuments occupy an upland area in Lemanaghan Bog which is bordered to the south by the callows of the River Brosna. Surrounding them is an exceptional number of archaeological find sites, many relating to a complex infrastructure of trackways or toghers, which were built and repaired over several centuries. It consists of a medieval church, St. Mellas Cell, Holy Well and Togher, and a cluster of relatively small dwellings, the largest of which, Lemanaghan House, is to the south-west of the monastic site. The Heritage Council prepared a Conservation Plan for Lemanaghan in 2007. The Planning Authority will have regard to this plan when assessing applications that are within this area or in close proximity to this area.

13.1.4.6 **Westmeath County Development Plan 2021-2027**

The Westmeath County Development Plan 2021-2027 (WCDP) came into effect on May 3rd, 2021. The relevant policies and objectives of the WCDP are included here as some sites and monuments relevant to this assessment are located in County Westmeath, such as the Hill of Uisneach and Bealin High Cross, albeit at a distance of c. 24km and 14.5km from the Proposed Project (i.e., proposed turbines), respectively.

13.1.4.6.1 **Cultural Heritage Policy Objectives**

It is a policy objective of Westmeath County Council to:

CPO 14.1 Improve accessibility to our cultural heritage and maximise its potential as a learning resource.

CPO 14.2 Promote the understanding of cultural heritage in terms of its inherent and unique character and to recognise what elements should be preserved, conserved or enhanced.

CPO 14.3 Support the implementation of objectives and actions of the Westmeath County Heritage Plan 2018-2023 and update during the lifetime of the Plan.

CPO 14.4 Support the growth of cultural tourism in the County, including the potential for niche heritage-based tourism products by facilitating the development of heritage events, festivals and infrastructure in a sustainable manner

13.1.4.6.2 **Archaeology Policy Objectives**

It is a policy of Westmeath County Council to:

CPO 14.5 Seek to ensure the protection and sympathetic enhancement of archaeological heritage, and in this regard, applications will be referred to the National Monuments Service, Department of Culture, Heritage & the Gaeltacht for comment.

CPO 14.6 Seek to ensure the protection of archaeological sites and monuments and their settings and archaeological objects that are listed in the Record of Monuments and Places, in the ownership/guardianship of the State, or that are the subject of Preservation Orders or have been registered in the Register of Historic Monuments. Seek to ensure the protection and preservation of archaeological sites, which have been identified subsequent to the publication of the Record of Monuments and Places.

CPO 14.7 Ensure that any development adjacent to an archaeological monument or site shall not be detrimental to the character of the archaeological site, or its setting and shall be sited in a manner which minimises the impact on the monument and its setting. Development which is likely to detract from the setting of such a monument or site will not be permitted.

CPO 14.8 Seek to ensure the protection and preservation of underwater archaeological sites in riverine or lacustrine locations.

CPO 14.9 Encourage and promote the appropriate management and maintenance of the County's archaeological heritage, including historical burial grounds, in accordance with conservation principles and best practice guidelines.

CPO 14.10 Ensure that extensions to archaeologically significant burial grounds will only be permitted, in the event the extension would not constitute a proven risk to archaeological heritage, by means of a direct impact on archaeological features.

CPO 14.11 Consult with the National Monuments Service in relation to proposed developments adjoining archaeological sites.

CPO 14.12 Ensure that archaeological excavation is carried out according to best practice as outlined by the National Monuments Service, Department of Culture, Heritage, and the Gaeltacht, The National Museum of Ireland and the Institute of Archaeologists of Ireland.

CPO 14.13 Prepare conservation plans for the management of archaeological sites and monuments in Council ownership.

CPO 14.14 Encourage increased awareness of and public access to monuments within Council ownership.

CPO 14.15 Ensure that all proposed developments affecting disturbance to peatlands is subject to archaeological monitoring, in consultation with the Department of Culture, Heritage and the Gaeltacht, unless otherwise agreed with the Planning Authority.

13.1.4.6.3 **Architectural Heritage Policy Objectives**

It is a policy of Westmeath County Council to:

CPO 14.26 Support initiatives to identify architectural heritage that may be under threat due to climate change or neglect and progress measures and, where possible, support the protection of at-risk architectural heritage.

13.1.4.6.4 **Architectural Heritage & Protected Structures Policy Objectives**

It is a policy objective of Westmeath County Council to:

CPO 14.27 Protect and conserve buildings, structures and sites contained in the Record of Protected Structures and to encourage the sympathetic re-use and long-term viability of such structures without detracting from their special interest and character.

CPO 14.28 Protect the architectural heritage of Westmeath through the identification of Protected Structures, the designation of Architectural Conservation Areas (ACAs), the safeguarding of designed landscapes and historic gardens, and the recognition of structures and elements that contribute positively to the vernacular and industrial heritage of the County.

CPO 14.29 Require that applications for modifications, alterations, or extensions to a Protected Structure will be assessed in accordance with the Architectural Heritage Protection Guidelines 2011 and should be sensitively sited and designed, compatible with its special character, and appropriate in terms of the proposed scale, mass, height, density, layout, and materials so that the integrity of the structure and its curtilage is preserved.

CPO 14.30 Seek that the form and structural integrity of Protected Structures is retained as part of any redevelopment proposal and that the relationship between the Protected Structure and any complex of adjoining buildings, designed landscape features, or designed views or vistas from or to the structure is considered.

CPO 14.31 Encourage rehabilitation, renovation and re-use of existing Protected Structures for their own economic benefit and that of the area in which they are located.

CPO 14.32 Carry out an audit and assess the condition of Protected Structures within the Council's ownership and devise a Conservation Management Plan/maintenance regime for these structures.

CPO 14.33 Carry out an audit of Protected Structures within the Council's ownership to identify any Protected Structures that are under threat directly or indirectly due to climate change.

CPO 14.34 Integrate climate change adaptation measures into future heritage management plans.

CPO 14.35 Provide guidance for owners of protected structures or historic buildings on upgrading for energy efficiency and climate resilient measures and promote the principles of sustainable building design in conservation.

CPO 14.36 Ensure a sustainable future for Protected Structures and buildings sited within ACAs by encouraging and supporting works to upgrade the environmental performance of such structures together with the implementation of measures to address the impacts of climate change. Such works should not adversely affect the special character of the structure including impact on historic fabric, traditional construction, visibility, siting and design. The installation of renewable energy measures and equipment will be acceptable where sited and designed to minimise the visual impact, where it does not result in any significant loss of historic fabric or otherwise affect the significance of the structure.

CPO 14.37 Incentivise the restoration of Protected Structures in towns and villages.

CPO 14.38 Facilitate contemporary and innovative designs providing that they are of a sufficient high quality and do not detract from the character of the historic fabric of the Protected Structure.

In addition to the policies and objectives outlined above the WCDP also states the following in relation to the Hill of Uisneach which is included in the UNESCO World Heritage Sites Tentative List as part of the Royal Sites of Ireland.

‘In recognition of the exceptional archaeological and cultural significance of the Hill of Uisneach, the site has been designated as a High Amenity Area. The elevation of the Hill of Uisneach confers both panoramic views, as well as visual prominence, which ensures that the site and its immediate context is very sensitive to adverse visual impacts. The Council recognise the significance and sensitivity of the Hill of Uisneach and given that the site is listed on the tentative list for UNESCO status since 2010, further protection has been afforded to the site by designating the area as a High Amenity Area with views from the perimeter skyline ridge identified as a Protected Panoramic View. Figure 13.2 [Figure 13-3] below

indicates the protected panoramic view indicated by the red dash line and arrows.

The extent of the High Amenity Area at the Hill of Uisneach is highlighted in turquoise above and contains Core and Buffer Areas with associated protective policies. From a landscape perspective, core and buffer areas are identified as locations where any development is likely to significantly alter the appearance and context of monuments [Core] and areas where developments should be carefully scrutinised to anticipate and avoid significant changes to landscape context of the monuments or to the inter-relationship between the core area and relevant monuments in the surrounding landscape.

- An Inner Core High Amenity Area [yellow shaded area] that comprises the interior of the hilltop plateau that is visually isolated from the surrounding countryside.
- An Outer Core High Amenity Area [olive shaded area] that contains the majority of monuments can be readily identified by observing the field boundaries that enclose areas above the 160m contour.
- A High Amenity Buffer Area [turquoise shaded area] can be identified within the adjoining townland boundaries as follows:
 - Ushnagh Hill
 - Mweelra
 - Rathnew
 - Kellybrook

It is a policy objective of Westmeath County Council to:

CPO 13.7 Ensure that any significant, industrial and or infrastructural developments (excluding residential; agricultural buildings; tourism; greenway; cultural; educational or community buildings), which would impact upon Uisneach and or its protected views will not be permitted due to the sensitivity of the site.

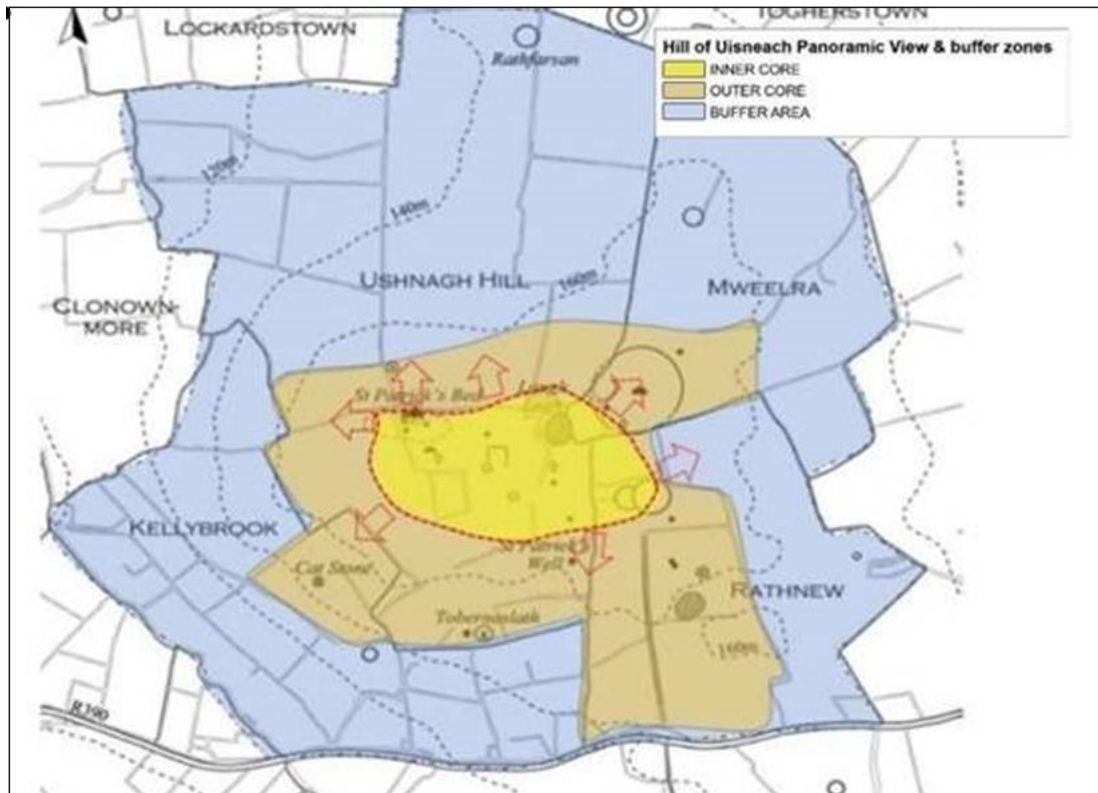


Figure 13-3: Extract from Figure 13.2 of WCDP showing the Panoramic View and Buffer Zones at the Hill of Uisneach.

13.1.5 Scoping and Consultation

The scope for this chapter of the EIAR has also been informed by consultation with statutory consultees, bodies with environmental responsibility and other interested parties. This consultation process and the List of Consultees is outlined in Section 2.8.2 of Chapter 2 of this EIAR. Matters raised by Consultees in their responses with respect to cultural heritage are summarised in Table 13-1 below.

Table 13-1 Summary of scoping response

Consultee	Description	Addressed in Section
National Monuments Service, Department of Housing Local Government and Heritage	A full archaeological impact assessment report is recommended that includes the results and detailed field survey and should be informed by further archaeological assessment i.e. pre-planning test trenching and geophysical survey where [sic] site conditions are suitable.	Section 13.2, Section 13.3, Section 13.4

13.1.5.1 Offaly County Council

No scoping response specifically relating to archaeology, architectural or cultural heritage has been received from Offaly County Council.

13.1.5.2 Department of Housing Local Government and Heritage

The following response was received from the National Monuments Service (NMS) on foot of the scoping request issued to the Department of Housing, Local Government and Heritage (DHLGH):

'We note that the landscape around the townland of Lemanaghan and its surrounding townlands is a peatland environment that has a high concentration of recorded monuments. This peatland landscape as a high potential for archaeological features to be uncovered during the course of any future development works.'

A full archaeological impact assessment report is recommended that includes the results and detailed field survey and should be informed by further archaeological assessment i.e. pre-planning test trenching and geophysical survey where [sic] site conditions are suitable.'

As part of the consultations undertaken as part of the RED III Directive as it relates to Strategic Infrastructure Renewable Energy Developments a meeting was held with the NMS on 11th November 2025 regarding the Proposed Project and Cultural Heritage. The requirement for further surveys and visual assessment was identified (please see Chapter 14 for further detail). Pre-development test trenching as referred to in the NMS response has been proposed as mitigation (See Section 13.4.3.1.2 below). It is accepted that geophysical survey is not a suitable assessment technique in peatland environments.

13.1.5.3 Heritage Council

A scoping request was issued to the Heritage Council in October 2024; however, no response has been received to date.

13.1.5.4 An Taisce

A scoping request was issued to An Taisce in May 2021 and October 2024, however, no response has been received to date. Assessment Methodology

The assessment of the archaeology, architecture and cultural heritage of the Proposed Project included geographic information system (GIS) mapping, desk-based research and field inspection. See Section 13.1.10.2 below for methodology regarding assessment of indirect (visual) effects.

13.1.6 Geographical Information Systems (GIS)

GIS is a computer database which captures, stores, analyses, manages and presents data that is linked to location. GIS is geographic information systems which includes mapping software and its application with remote sensing, land surveying, aerial photography, mathematics, photogrammetry, geography and tools that can be implemented with GIS software. GIS was used to manage the datasets relevant to the archaeological and architectural heritage assessment and for the creation of all the maps in this section of the report. This involved the overlaying of the relevant archaeological and architectural datasets on georeferenced aerial photographs and road maps (i.e. Economic and Social Research Institute (ESRI)), where available. The integration of this spatial information allows for the accurate measurement of distances of a proposed development from archaeological and cultural heritage sites and the extraction of information on 'monument types' from the datasets. Areas of archaeological or architectural sensitivity may then be highlighted in order to mitigate the potential negative effects of a development on archaeological, architectural and cultural heritage.

13.1.7 Desktop Assessment

The desktop assessment for the Proposed Project involved the consultation of, but was not limited to, the following sources:

- › UNESCO World Heritage Sites Ireland (<https://whc.unesco.org/en/statesparties/ie/>)
- › The Record of Monuments and Places (RMP) County Offaly
- › The Sites and Monuments Record (SMR) County Offaly
- › National Monuments in State Care County Offaly
- › National Monuments in State Care County Westmeath
- › Monuments Subject to a Preservation Order County Offaly
- › Monuments Subject to a Preservation Order County Westmeath
- › The Topographical Files of the National Museum of Ireland
- › First edition Ordnance Survey maps (Tailte Éireann)
- › Second edition Ordnance Survey maps (Tailte Éireann)
- › Third edition Ordnance Survey maps (Tailte Éireann)
- › Aerial photographs (copyright of Tailte Éireann)
- › Excavations Database
- › National Inventory of Architectural Heritage (NIAH)
- › Record of Protected Structures
- › Offaly County Development Plan 2021-2027
- › Westmeath County Development Plan 2021-2027
- › Previous archaeological assessments (various)
- › Previous Peatland Surveys (various)
- › Lemanaghan County Offaly Conservation Plan

13.1.7.1 Record of Monuments and Places, Sites and Monuments Record and National Monuments

A primary cartographic source and base-line data for the assessment was the consultation of the Sites and Monuments Record (SMR) and Records of Monuments and Places (RMP) for County Offaly. All known recorded archaeological monuments are indicated on 6-inch Ordnance Survey (OS) maps and are listed in these records. The SMR/RMP is not a complete record of all monuments as newly discovered sites may not appear in the list or accompanying maps. In conjunction with the consultation of the SMR and RMP the electronic database of recorded monuments and SMRs which may be accessed on the Historic Environment Viewer (HEV) at www.heritagedata.maps.arcgis.com was also consulted.

A review of all National Monuments in State Care and those subject to Preservation Orders in Counties Offaly and Westmeath was also undertaken as part of the assessment.

13.1.7.2 Cartographic Sources and Aerial Photography

The available cartographic sources were consulted as part of the assessment, where available, as was Tailte Éireann aerial photography, Google Earth imagery and MapGenie imagery. The following cartographic sources were consulted:

- › Down Survey barony maps (1656-8) (<https://downsurvey.tchpc.tcd.ie/>, accessed 19th December 2025)
- › Taylor and Skinner Road Maps (1777) (<https://www.swilson.info/>, accessed 19th December 2025)
- › Bog commission Maps (1810) (<https://virtualtreasury.ie/>, accessed 19th December 2025)

- › First (1829-41), second (1897-1913) and third (1830s -1930s) edition Ordnance Survey (OS) maps (Tailte Éireann)

13.1.7.3 Topographical Files - National Museum of Ireland

Details relating to finds of archaeological material and monuments in numerous townlands in the country are contained in the topographical files held in the National Museum of Ireland. In order to establish if any new or previously unrecorded finds had been recovered from the site these files were consulted for each townland within the site.

13.1.7.4 Archaeological Inventory Series

Information on archaeological sites is contained in the published County Archaeological Inventory series prepared by the Department of Housing, Local Government and Heritage (DHLGH). The archaeological inventories present summarised information on sites listed in the SMR/RMP and include detail such as the size and location of particular monuments, as well as any associated folklore or local information pertaining to each site. The inventories, however, do not account for all sites or items of cultural heritage interest which are undiscovered at the time of their publication. Many sites have been discovered since the publication of the Inventory Series, which have now been added to the Sites and Monuments Record. The information contained within the Archaeological Inventory Series is the basis for the monument descriptions as provided on the HEV and was therefore accessed on the HEV.

13.1.7.5 Record of Protected Structures

The OCDP was consulted for the schedule of buildings (Record of Protected Structures) and items of cultural, historical or archaeological interest which may be affected by the Proposed Project. The dataset for the Offaly Record of Protected Structures was added to the base mapping for the Proposed Project in order to accurately assess any potential effects on such structures.

13.1.7.6 Excavations Database

The Excavations Database is an annual account of all excavations carried out under license. The database is available online at www.excavations.ie and includes excavations from 1985 to 2026. This database was consulted as part of the desktop research for this assessment to establish if any archaeological excavations had been carried out within or near to the site.

13.1.7.7 National Inventory of Architectural Heritage (NIAH)

This source lists some of the architecturally significant buildings and items of cultural heritage and is compiled on a county-by-county basis by the DHLGH. The NIAH database was consulted for all townlands within and adjacent to the site. The NIAH survey has been published, and the digital dataset was downloaded on to the base mapping for the Proposed Project (www.buildingsofireland.ie). The NIAH is a state initiative under the administration of the DHLGH and established on a statutory basis under the provisions of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999.

The purpose of the NIAH is to identify, record, and evaluate the post-1700 architectural heritage of Ireland, uniformly and consistently as an aid in the protection and conservation of the built heritage. NIAH surveys provide the basis for the recommendations of the Minister for the Department of Culture, Heritage and the Gaeltacht to the planning authorities for the inclusion of particular structures in their Record of Protected Structures (RPS).

13.1.7.8 Previous Assessments

A number of archaeological surveys were previously carried out within the site during the lifetime of peat extraction and ancillary activities by Bord na Móna (BnM). A summary of the available results of such surveys and/or any reassessment surveys is presented in Section 13.2.2.1.4 below and also in Appendix 13-4.

13.1.8 Field Inspection

The site was subject to a walk-over survey in December 2024, January 2025 and December 2025. The inspection was undertaken by Miriam Carroll of Tobar Archaeological Services Ltd. The inspection consisted of a walk-over examination of the Proposed Wind Farm infrastructure locations and bog field surfaces and drain sections where not vegetated or obscured by water. A walk-over survey of the proposed enhancement areas was also carried out where not vegetated. The site is comprised of a mixture of bare cutaway peat, re-vegetated bare peat and scrub. Visual inspection of the bare field surfaces was possible during the walk-over survey; however, visual inspection was not possible where those field surfaces and drain sections are re-vegetated.

It should be noted that while drain sections were visually inspected where not obscured by water or vegetation, drains have not been recently cut given that peat production ceased on the site in 2020. The absence of recent drain cutting means that drain faces were not all clean and/or conducive to the detection of archaeological features or monuments.

A photographic and descriptive record was made of the site and any features of interest therein. The photographic record is included as Appendix 13-3 of this EIAR.

Archaeological monitoring of site investigation trial pits carried out over three phases was also undertaken and involved the on-site archaeological supervision of the excavation of the geotechnical trial pits at various locations around the site (See Section 13.2.2.1.4 for further detail).

13.1.9 Limitations Associated with the Assessment

13.1.9.1 Field Assessment

Access to all relevant areas of the Proposed Project site for the purposes of a walk-over survey and visual inspection was possible, however, standing water is present in places and recolonisation of some field and drain surfaces has taken place. The field survey undertaken in addition to previous archaeological monitoring of site investigation trial pits in 2021 and 2022 has allowed for a satisfactory inspection of the Proposed Project site for the purposes of this assessment.

13.1.9.2 Desktop Assessment

No significant limitations were encountered during the desktop assessment.

13.1.10 Assessment of Likely Significant Effects

The likely effects on the existing archaeological, architectural and cultural heritage environment are assessed using the criteria as set out in the *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports* (EPA, 2022) and described in section 1.7.2 of Chapter 1. The following terminology is used when describing the likely effects of the Proposed Project from a Cultural Heritage perspective.

13.1.10.1 Types of Effect

- › Direct effects arise where an archaeological heritage feature or site is physically located within the footprint of the development whereby the removal of part, or all of the feature or site is thus required.
- › Indirect effects may arise as a result of subsurface works undertaken outside the footprint of the development, secondary environmental change such as a reduction in water levels and visual effects.
- › Cumulative effects arise when the addition of many effects create a larger, more significant effect.
- › Residual effects are the degree of environmental changes that will occur after the proposed mitigation measures have been implemented.

13.1.10.1.1 Magnitude of Effects (Significance)

- › Profound: Applies where mitigation would be unlikely to remove adverse effects. Reserved for adverse, negative effects only. These effects arise where an archaeological site is completely and irreversibly destroyed.
- › Very Significant: An effect which by its character, magnitude, duration or intensity significantly alters most of the sensitive aspect of the environment.
- › Significant: An effect which by its character, magnitude, duration or intensity alters a sensitive aspect of the environment. An effect like this would be where part of a site would be permanently impacted upon, leading to a loss of character, integrity and data about an archaeological site.
- › Moderate: A moderate effect arises where a change to an archaeological site is proposed which though noticeable, is not such that the integrity of the site is compromised and which is reversible. This arises where an archaeological site can be incorporated into a modern-day development without damage and that all procedures used to facilitate this are reversible.
- › Slight: An effect which causes changes in the character of the environment which are not high or very high and do not directly impact or affect an archaeological site.
- › Not Significant: An effect which causes noticeable changes in the character of the environment but without significant consequences.
- › Imperceptible: An effect on an archaeological site capable of measurement but without noticeable consequences.

13.1.10.2 Cultural Heritage Receptors Considered

For the purposes of this assessment the following Cultural Heritage receptors were considered:

- › UNESCO World Heritage Sites and those on the Tentative List
- › National Monuments (State Care, Ownership or Guardianship) and those subject to a Preservation Order
- › Recorded monuments (SMR/RMP)
- › Protected Structures
- › NIAH Structures and Historic Gardens
- › Items of local cultural heritage merit

13.1.10.2.1 Sensitivity of Receptors

Rating the importance or sensitivity of cultural heritage receptors relies on the judgment of the Cultural Heritage Professional and may be subjective. A number of factors may be taken into consideration when determining the sensitivity of a receptor such as whether it is of International, National, Regional or local significance, its state of preservation, designation, etc. It should be noted, however, that not all receptors may have a statutory designation or designated significance (i.e. International, National,

Regional, Local) therefore all receptors are considered on their own merits in the context of the information available at the time of the assessment and may be subject to change. The following sensitivity of receptors was determined for this assessment (Table 13-2) and is with regard to guidance contained within Guidelines for Cultural Heritage Impact Assessment of TII National Road and Greenway Projects (TII September 2025).

Table 13-2: Sensitivity of Cultural Heritage Receptors Considered

Cultural Heritage Asset/Receptor	Sensitivity
UNESCO World Heritage Sites (including tentative sites)	Very High
National Monuments (State Ownership and Preservation Order Sites)	Very High
Sites and Monuments and Recorded Monuments	Medium-High
Protected Structures	Medium-High
NIAH structures and Historic Gardens	Medium-Low
Undesignated items of local cultural heritage merit	Low

13.1.10.3 Methodology for the assessment of effects on visual setting (indirect effects)

A standardised approach was utilised for the assessment of effects of visual setting (indirect effects) according to types of monuments and cultural heritage assets which may have varying degrees of sensitivity. This assessment does not include visits to each and every site as this is considered to be beyond the scope of this EIAR as they are mainly located on private lands to which the public have no access. The assessment of effects on visual setting was undertaken using both the Zone of Theoretical Visibility (ZTV) map in the Landscape and Visual Impact Assessment (LVIA), as presented in Chapter 14 of this EIAR, and also photomontages / Photowires from specific cultural heritage assets or other relevant locations. The analysis used in the assessment of potential effects on the visual setting of cultural heritage assets in the wider landscape of 5km, 10km and 25km considers the effects of the proposed turbines. The tall, vertical nature of the proposed turbines make them the most prominent elements of the Proposed Project from a visual perspective and have the most potential to give rise to significant, indirect, effects.

Other components of the Proposed Project such as roads, tracks construction compounds, etc are not deemed to be as visually prominent as the proposed turbines.

The proposed 145m anemometry mast (referred to as the proposed met mast) is also a tall vertical structure, thus it is included in the *EIAR Volume 2: Photomontage Booklet* and is fully considered throughout this chapter. However, it will be substantially less visible than any turbine given its shorter and slender lattice form.

The proposed 220kV GIS Substation is a tall structure with an above ground height of 21.065m and covering an area of approximately 3521m². The steel masts are also tall vertical structures with an above ground maximum height of 28m. Given the height of these elements, they are considered to be essential aspects of the Proposed Project from a visual perspective. As such, both the proposed onsite

220kV substation and steel masts, have been included in the photomontage booklet in the *EIAR Volume 2: Photomontage Booklet* (see Viewpoint (VP) 16 and VP17) and are fully considered throughout this chapter.

While direct physical effects to a site or monument can easily be assessed in quantitative terms, the assessment of effects on setting can be subjective and as such is a matter of qualitative, professional judgement and experience. The distances outlined in Table 13-3 used in the assessment of effects on setting are regarded as appropriate and are based on professional judgement.

Table 13-3: Distance considered from the proposed turbines to cultural heritage assets according to sensitivity

Cultural Heritage Asset	Distance Considered from the proposed turbines
UNESCO World Heritage Sites (including tentative sites)	25km
National Monuments (State Ownership and Preservation Order Sites)	15km
Sites and Monuments and Recorded Monuments, RPS	5km
NIAH structures	5km
Undesignated sites, if relevant	500m

When assessing potential effects to the setting of UNESCO World Heritage Sites (WHS) on the Tentative List this was done with regard to the following guidance documents:

- Guidance and Toolkit for Impact Assessments in a World Heritage Context (UNESCO, 2022) Hereafter referred to as ‘UNESCO Toolkit Guidance’
- Guidance for Wind Energy Projects in a World Heritage Context (UNESCO, 2022) – Hereafter referred to as ‘UNESCO Wind Guidance’

See Section 13.2.2.1.1 for further detail.

The **potential** visual effects of the proposed turbines on the setting of other cultural heritage assets such as recorded monuments are graded according to two criteria (Table 13-4):

1. **Distance to the nearest proposed turbine:** Each increment of distance is numbered from 1-5 in severity with 1 being the lowest in severity (i.e. 4-5km from the nearest proposed turbine and 5 being the most severe (0-1km from the nearest turbine).
2. **Number of proposed turbines visible on ZTV.** Each increment is also numbered from 1-3 with 1 being the least severe (i.e. 1-5 turbine visible) and 3 being the most severe (11-15 turbines visible).

The number values are then multiplied to arrive at a potential effect (from Imperceptible to Moderate). For the purposes of the Proposed Wind Farm there are no Significant effects. Very Significant and Profound are reserved for adverse direct effects which result in the total removal of cultural heritage assets which does not occur from visual effects. The following table is used to ascertain the potential visual effect on Cultural Heritage assets within 5km of the Proposed Project not assuming any vegetation, existing buildings, and any other screening in the landscape.

Table 13-4: Grading of Potential visual effects according to Distance and No. of proposed turbines visible from Cultural Heritage Assets

No. of Turbines Visible (ZTV)	1-5 (1)	6-10 (2)	11-15 (3)
Distance of asset to turbine			
4-5km (1)	1	2	3
3-4km (2)	2	4	6
2-3km (3)	3	6	9
1-2km (4)	4	8	12
0-1km (5)	5	10	15
Imperceptible (0)	Not Significant (1-5)	Slight (6-10)	Moderate (11-15)

13.2 Existing Environment

13.2.1 Results of Field Inspection

No potential archaeological sites, structures or stray finds were noted within the site during the site walk-over survey. Similarly, no potential archaeological finds or features were exposed during archaeological monitoring of three phases of site investigation trial pits excavated within the Proposed Wind Farm (See Section 13.2.2.1.4 for further detail).

13.2.2 Archaeological, Architectural and Cultural Heritage

Archaeological heritage includes UNESCO World Heritage Sites and those on the tentative list, National Monuments in State Care and those which are subject to a preservation order, sites listed in the RMP/SMR, newly discovered archaeological sites and potential sub-surface archaeology. Architectural heritage includes Protected Structures, NIAH structures and historic gardens while cultural heritage also includes items not included in the RPS or NIAH which may be indicated on the historic mapping or noted during field survey. Such items may include gate piers, local vernacular architecture, field walls, etc. Each of these are addressed in the following sections.

A number of documentary and cartographic sources (as listed in Section 13.1.7 above) were utilised in order to ascertain the potential for the presence of cultural heritage features on or within the area of the Proposed Project site. Section 13.2.2.1 addresses the Proposed Wind Farm, Section 13.2.2.2 addresses the Proposed Grid Connection and Section 13.2.2.3 addresses the proposed turbine delivery route.

13.2.2.1 Proposed Wind Farm

13.2.2.1.1 UNESCO World Heritage Sites and those on Tentative List

No UNESCO World Heritage Sites (WHS) or those on the Tentative list are located within the Proposed Project site or in close proximity to same. Two UNESCO WH Tentative List sites are located within 25km of the nearest proposed turbine (T3 and T15) and comprise the Hill of Uisneach and Birr Castle and Demesne (Figure 13-4). The latter is part of the Historic Astronomical Observatories of Ireland which was added to the Tentative List for Ireland in April 2025. Birr Castle and Demesne is situated c. 23km south-west of the nearest proposed turbine, T3, while the Hill of Uisneach is located c. 24km north-east of the nearest proposed turbine, T15. The ZTV demonstrates no theoretical visibility of the proposed turbines from Birr Castle and Demesne (Figure 13-5).

Clonmacnoise was previously included on the Tentative List of UNESCO WHS but was removed in 2021 when the list was updated. Clonmacnoise is assessed in Section 13.2.2.1.2 below under National Monuments.

The Hill of Uisneach

Theoretical visibility of 11-15 proposed turbines is demonstrated from the Hill of Uisneach. The Hill of Uisneach is included in the Royal Sites of Ireland which has been accepted on to the UNESCO WHS Tentative List. The Hill of Uisneach, the symbolic central point of Ireland, is one of six sites (the others being Dún Ailinne, Co Kildare; Rock of Cashel, County Tipperary; Rathcroghan, County Roscommon; Tara, County Meath and Emain Macha/ Navan Fort, County Armagh) that form the Royal Sites of Ireland. The sites demonstrate in physical form the development of power, ceremony and religion in a Celtic society minimally influenced by the Romans (UNESCO, Royal Sites of Ireland, online). The Hill of Uisneach is a rich archaeological and sacred landscape that contains 46 recorded monuments which span from prehistory to modern times. It is a multi-phased archaeological complex including eight barrows, seven ring-ditches, a megalithic tomb, two standing stones, four enclosures (including a hilltop enclosure), four ringforts, four souterrains, three house sites, an earthwork, a burial ground, two hut sites, a road, two medieval houses, a building, a ritual pond, rock art and two holy wells.

Historically the site is regarded as the centre point, or ‘naval’ of Ireland, symbolised by the presence of a great stone called the Ail na Mireann, or Stone of Divisions (the Cat’s Stone) and the navel of the goddess Ériu. The Hill is a place of exceptional cultural and ritual importance, a place apart, inspiring myths and legends. It is recorded as a place of assembly, burial, and pagan ritual and according to legend, the first fire in Ireland was lit by the Druid, Mide, foster son of Ériu. In pre-Christian times at the Hill of Uisneach, the fire festival of Bealtine (which is also linked to Saint Brigid) was celebrated with bonfires, to welcome the beginning of Summer on the eve of May. These bonfires were lit in honour of Ériu and other deities and were the signal for the lighting of fires on hills across Ireland on that night. In myth, Uisneach is also considered the burial place of Lugh, one of the chief gods of the Tuatha De Danann, and linked to the great pan-European Iron Age God of the harvest, craftsmanship and the Sun. As an amenity, the Hill is the focus of the great fire ceremonies during the May time festival of Bealtaine which continues to attract many visitors each year.

As one of the ‘Royal Sites of Ireland’ the Hill of Uisneach is proposed for nomination for UNESCO World Heritage status. The Royal Sites of Ireland comprise six separate sites, each containing a collection of well-preserved prehistoric and early medieval monuments described in medieval texts as the principal royal sites of Ireland. When heritage sites are moved from a tentative list to inscription on the World Heritage List, the World Heritage Committee adopts a Statement of Outstanding Universal Value (OUV). Such a statement explains how the site or place meets the relevant WHS criteria, how the conditions of authenticity and integrity are fulfilled and how the OUV will be cared for over time through management and protection. Given that the Royal Sites of Ireland (including the Hill of Uisneach) have not been inscribed on to the World Heritage List and remain on the Tentative List, their OUV has not been defined. Additionally, buffer zones around the Royal Sites have also not been defined. While inclusion on the Tentative List does not guarantee that any part of the ‘Royal Sites of Ireland’ will become a World Heritage Property, it does indicate the very high level of importance attached to the site by the state.

The following documents provide guidance for the impact assessment of wind energy developments on UNESCO world heritage. The assessment of potential effects to the Hill of Uisneach herein was undertaken with regard to same:

- Guidance and Toolkit for Impact Assessments in a World Heritage Context (UNESCO, 2022) Hereafter referred to as ‘UNESCO Toolkit Guidance’
- Guidance for Wind Energy Projects in a World Heritage Context (UNESCO, 2022) – Hereafter referred to as ‘UNESCO Wind Guidance’

Other relevant guidance and reference documents considered include *A Guide to World Heritage Nomination – World Heritage Advice Series No. 1 – (Department of Housing Local Government and Heritage, 2023)*, *World Heritage Tentative List Technical Evaluation (National Monuments Service and Department of Housing Local Government and Heritage 2022)* and *Conservation Management Plan for the Hill of Uisneach Co Westmeath June 2022 with amendments July 2023*.

The UNESCO Toolkit Guidance is specifically designed to assess impacts on properties that are already inscribed on the UNESCO World Heritage List or those with formally adopted Statements of OUV. World Heritage properties are inscribed on the World Heritage List for their exceptional cultural and/or natural values for all humanity. This importance is expressed through the Outstanding Universal Value (OUV) of a site. The OUV is endorsed by the World Heritage Committee in the Statement of Outstanding Universal Value (SOUV), usually at the time of inscription.

The toolkit has been developed to assess potential impacts on properties that:

- › Have been formally inscribed on the World Heritage List
- › Have an adopted Statement of OUV
- › Are already subject to the requirements of the World Heritage Convention.

The toolkit has developed a heritage impact assessment (HIA) approach tailored to protect sites whose OUV is recognised and binding. In contrast, tentative sites are not yet inscribed, meaning they do not have formal protection under the Operational Guidelines for the Implementation of the World Heritage Convention. Tentative sites do not have a formally adopted OUV, meaning there is no agreed framework against which to assess the impact of a development. The tentative list status means a country has proposed a site for potential future nomination, but it has no legal or procedural standing under the World Heritage Convention.

As the OUV for any of the Royal Sites of Ireland, including the Hill of Uisneach, have not been defined there is no agreed framework against which to assess the impact of a development on those sites. At the time of writing, there is no definitive statement of what constitutes OUV for the Hill of Uisneach, therefore complete alignment with the UNESCO guidance is not currently possible. There are suggested frameworks and technical tools within the guidance, however, which have been considered to ensure the most comprehensive and robust assessment possible in the absence of both defined OUV or defined spatial buffers.

As such, the assessment of potential effects will be considered through national legislation and frameworks identified above while recognising the justification for OUV for the group nomination of the Royal Sites of Ireland put forward by the State and that until the Hill of Uisneach is formally inscribed, it does not hold a binding World Heritage status.

Designation and Protection

The protection and conservation of the monuments that comprise the Hill of Uisneach are controlled by a range of national legislation, local mechanisms and international statutory and non-statutory guidance. These legislative provisions include, amongst others, the National Monuments Acts 1930-2014, Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023, Westmeath County Development Plan 2021-2027 (hereafter 'WCDP'), Planning and Development Acts, various EU directive and international charters. The Conservation Management Plan (CMP) for the Hill of Uisneach was developed in order to safeguard the multifaceted heritage of the site while enabling responsible public access, education and sustainable tourism, ensuring the site's protection for future generations.

The panoramic view from the Hill of Uisneach is protected within the Westmeath County Development Plan (WCDP) which states the following '*The Council recognise the significance and sensitivity of the Hill of Uisneach and given that the site is listed on the tentative list for UNESCO status since 2010, further protection has been afforded to the site by designating the area as a High Amenity Area with*

views from the perimeter skyline ridge identified as a Protected Panoramic View.’ In this regard the CDP goes on to illustrate the protected panoramic view from the Hill of Uisneach in addition to an inner core area, an outer core area and a wider buffer zone (WCDP Figure 13.2). It goes on to identify the ‘Core’ and ‘Buffer Areas’ as locations where development is likely to ‘significantly alter the appearance and context of monuments...’, with the required scrutiny of such developments to anticipate and avoid significant changes to the context of monuments or the ‘inter-relationship between the core area and relevant monuments in the surrounding landscape.’ At a distance of c. 24km to the south-west the Proposed Project is located a significant distance outside the inner core, outer core and wider buffer zones as identified in the WCDP.

Justification of Outstanding Universal Value

In the absence of an authoritative, UNESCO endorsed statement, the justification for OUV for the Royal Sites of Ireland must be relied upon. The statement of Potential OUV for the ‘Royal Sites of Ireland’ forms part of the documentation supporting its inclusion on the Ireland Tentative List (<https://www.worldheritageireland.ie/category/tentative-property>). Selective quotations from this statement that relate to setting and views include:

Justification

The ensembles of monuments of the Royal Sites are universally unique through their well-preserved cultural continuity and large-scale Iron Age complexes. The Royal Sites were sacred sites and places of royal inauguration and bear exceptional testimony to Iron Age civilisation forming a globally unique group of archaeological ceremonial complexes.

All of the Royal Sites form part of larger archaeological landscapes characterised by a large concentration of ritual monuments demonstrating in physical form the development of power, ceremony and religion in a Celtic society. Situated on strategic and elevated locations, the Royal sites are directly associated with Irish mythology and traditional beliefs and continue to represent spiritual and symbolic centres of Irish culture and identity, which have influenced approaches to life in many countries of the world.

Authenticity

The Sites all retain their prominent hill-top positions with panoramic views across their surrounding cultural landscapes. All the sites are characterised by surviving prehistoric and early medieval earthworks and masonry monuments. Their overall authenticity is high.

Integrity

The series as a whole has high integrity since it includes all six of the sites regarded as being the Royal Sites of Ireland. Each of the individual sites occupies a relatively large area, which is of adequate size to ensure the complete representation of the features, and processes conveying their significance. All key attributes are encompassed and the visual links between each Royal Site and its cultural hinterland remain intact, despite occasional intrusions.

Monuments in the Wider Cultural Landscape Setting

A number of archaeological monuments and sites in the wider landscape setting of the Hill of Uisneach were identified as part of this assessment which may have cultural, visual or functional connections to the Hill. The majority of these monuments are situated to the east, north-east and south of the Hill of Uisneach, while Knockastia Hill is located to the south-west. For ease of discussion the monuments are grouped below in terms of their perceived connection or relationship to the Hill of Uisneach, for example, royal sites or burial sites. Within the wider setting of the Hill of Uisneach, such monuments contribute to the broader ritual, mythological and settlement landscape. These surrounding sites often

reflect similar cultural and temporal frameworks, and their presence underscores the Hill of Uisneach's role as a central node within a network of prehistoric and early medieval activity.

Prehistoric Burial Sites

A number of burial sites with potential cultural or activity-related connectivity to the Hill of Uisneach are located in the wider landscape and comprise Knockastia Hill burial site (WM031-015—), Croghan Hill burial mound (OF010-004001-) and Frewin Hill barrow cemetery. All of these sites are the location of Bronze age funerary monuments which are positioned on elevated ground or low hills. Their elevated positions and funerary traditions make them comparable to the Hill of Uisneach in terms of the prehistoric burial activity carried out therein, potential intervisibility with Uisneach and in some cases may also comprise royal sites associated with the Kings of Ireland. Frewin Hill is located to the north-east of the Hill of Uisneach with Knockastia Hill situated to the south-west. Croghan Hill is located over 24km south-east of the Hill of Uisneach and c. 30km east of the Proposed Project site. There are no instances where the Proposed Project site lies between the Hill of Uisneach and the potentially related burial sites therefore any potential intervisibility effects between same as a result of the Proposed Project will not occur.

Royal Sites

Sites with royal associations located in the wider landscape of the Hill of Uisneach include Cró Inis and Slemain Mide. The former was one of the royal residences of the 'Kings of Uisneach', Clann Cholmáin. The standing remains at this site comprise a crannóg and tower house which are situated c. 9.6km south-east of the Hill of Uisneach on the shores of Lough Ennell and c. 25km north-east of the Proposed Project site. Slemain Mide which is reputedly an assembly site of the Clann Cholmáin, 'Kings of Uisneach' is located c. 11km north-east of the Hill of Uisneach and c. 32km north-east of the Proposed Project site. According to McGuinness (2012, 21) this is the hill of Slane More which has six burial mounds on or beside it. Those on the summit, he says, are clearly intervisible with the main mound on Frewin Hill (ibid.). Croghan Hill also has a royal association and the monument description on the HEV notes the following in this regard: 'The burial mound on Cruacháin Brí Éile was reputedly used as the inauguration site for the rulers of this region, the Ó Conchobhair (O'Connor) of Uí Failge (Faly/Offaly) (Fitzpatrick 2004, 32). This ritual function may be an example of a prehistoric burial mound being re-used in the medieval period by the local Gaelic clan. Through the inauguration process the O'Connor family could legitimately rule over this territory by establishing an ancestral link with the prehistoric people buried beneath the mound of Cruacháin Brí Éile.'

Also worthy of mention is the royal site of Dún Ailline which is also one of the Royal sites of Ireland. It is located c. 67km south-east of the Hill of Uisneach and c. 68km south-east of the Proposed Project site. As with the burial sites discussed above, there are no instances where the Proposed Project lies between any of the potentially associated royal sites and the Hill of Uisneach. Potential effects to any intervisibility between the Hill of Uisneach and such sites as a result of the Proposed Project will therefore not occur.

While the ZTV demonstrates theoretical visibility of the proposed turbines from the Hill of Uisneach given the distance of the Proposed Wind Farm (c. 24km) to the Core and Buffer Area as defined in the WCDP, the immediate setting of the Hill of Uisneach or its associated monuments will not be affected by the introduction of the proposed turbines. At this distance, the proposed turbines while visible from certain vantage points on the Hill, will not dominate the view or be visually disruptive. Equally, the proposed turbines will not compete with the elevated location of the Hill of Uisneach as a dominant feature in the landscape. As such, the visual change as a result of the Proposed Wind Farm is considered small in scale, leading to a low magnitude of change.

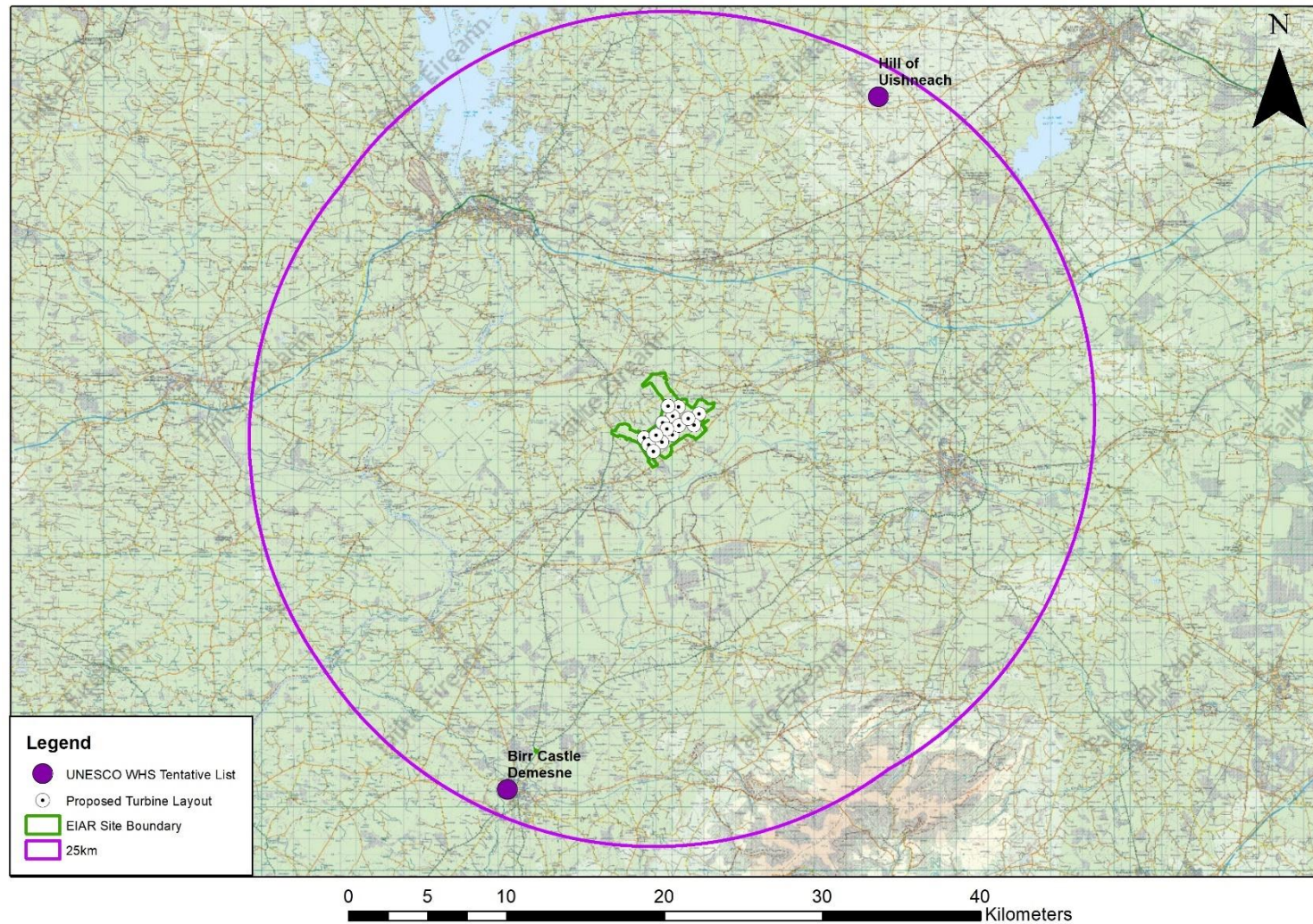


Figure 13-4: UNESCO Tentative List WHS in relation to the nearest proposed turbine.

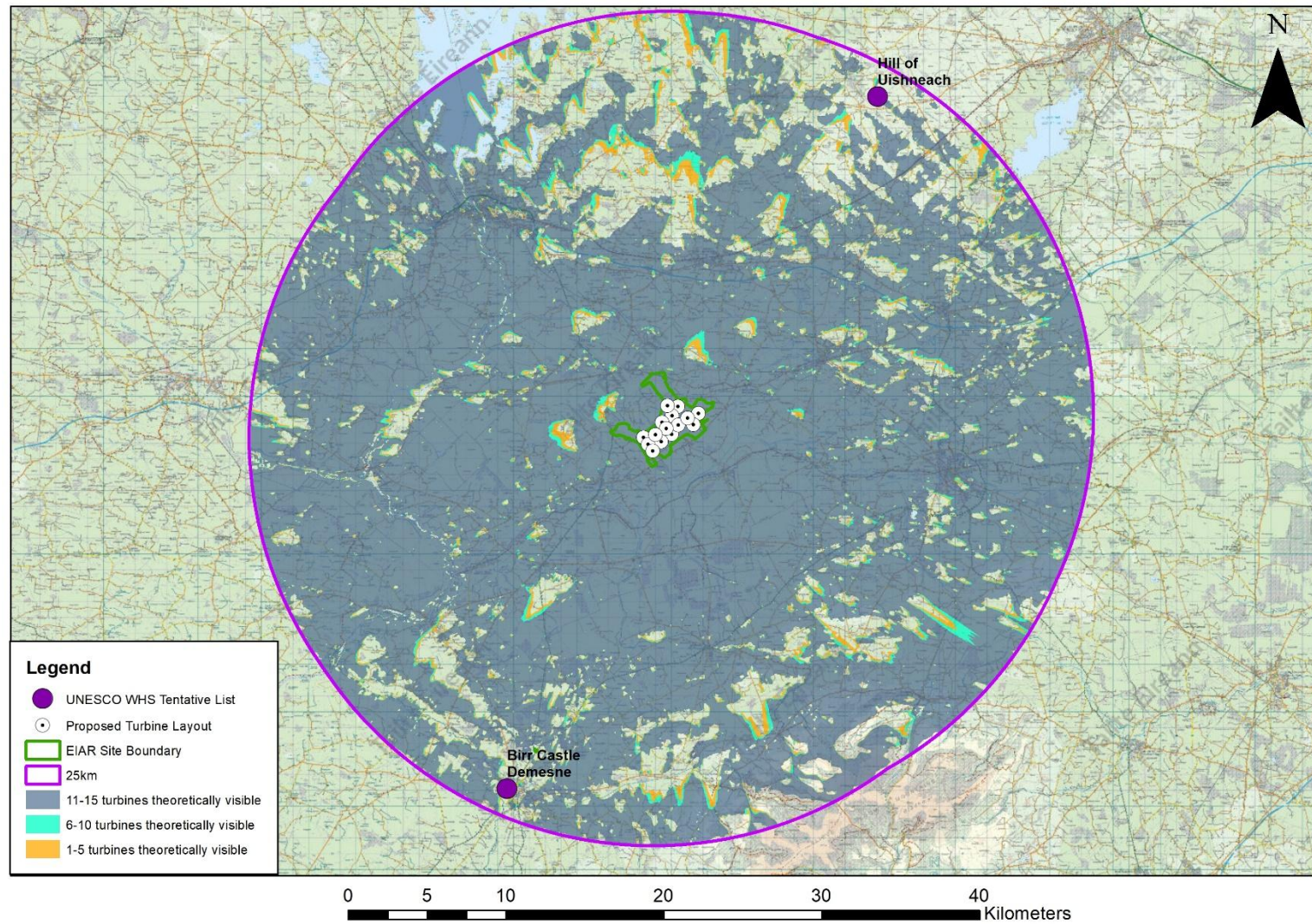


Figure 13-5: UNESCO Tentative List WHS in relation to the nearest proposed turbine and ZTV.

13.2.2.1.2 **National Monuments**

National Monuments are those recorded monuments which are in the ownership / guardianship of the Minister for Housing, Local Government and Heritage. They are frequently referred to as being in 'State Care'. National Monuments also include those which are subject to a Preservation Order. No National Monuments or those subject to a Preservation Order are located within the Proposed Wind Farm. Six National Monuments in State Care and eight monuments subject to a Preservation Order are located within 15km of the nearest proposed turbine and are listed in Table 13-5 and Table 13-6 and shown on Figure 13-6. The nearest National Monument comprises Gallen Abbey which is located c. 4.1km south-west of the nearest proposed turbine, T3 while the nearest monument subject to a Preservation Order is Coole Castle at Coole c. 4km south-west of T3. The monuments are described below.

Table 13-5: National Monuments within 15km of the nearest proposed turbine

Nat. Mon. No.	SMR NO.	ITM E	ITM N	NAME	CLASS	TOWNLAND	TURBINE ID	DISTANCE TO NEAREST TURBINE (m)
504	OF014-029001-, OF014-029006-, OF014-029017- to OF014-029027	611790	723591	Gallen Abbey	Church & Slabs	Gallen	T03	4183
82	OF016-015001-, OF016-015010-	625843	725497	Rahan Churches	Churches	Rahan	T15	8843
336	OF006-038-	604269	729706	Clonfinlough Stone	Rock Art	Clonfinlough	T01	10199
81, 250, 601	OF005-005-	600924	730732	Clonmacnoise	Early Medieval Ecclesiastical Site	Clonmacnoise	T01	13693
313 & 678	OF009-005001- to OF009-005018-, OF009-006-, OF009-031-	631797	730759	Durrow Abbey	Cross, Church, graveslabs & motte	Durrow	T15	14234
223	WM029-008	610296	742838	Bealin Cross	High Cross	Twyford	T10	14491

Table 13-6: Monuments subject to a Preservation Order within 15km of the nearest proposed turbine.

PO No.	SMR NO.	ITM E	ITM N	PO Description	CLASS	TOWNLAND	TURBINE ID	DISTANCE TO NEAREST TURBINE (m)
49/1937	OF015-017-	613367	722763	Coole Castle	Tower house	COOLE (Garrycastle By.)	T03	4011

PO No.	SMR NO.	ITM E	ITM N	PO Description	CLASS	TOWNLAND	TURBINE ID	DISTANCE TO NEAREST TURBINE (m)
8/1932	OF001-001—	621526	739006	The Ballynahinch Crannog	Crannog	BALLYNAHINC H	T15	10806
6/1956	OF023-010—	616681	715671	Ringfort	Ringfort - rath	Broughal	T03	11011
86/1940	OF022-008001-	605154	720611	Clonony Castle	Tower house	Clonony More	T02	11272
1/1980	WM030-065—	612354	740177	Ringfort	Barrow - stepped barrow	BALLYMURRY	T10	11291
3/1980	WM030-047—	615187	741905	Motte and Bailey	Castle - motte and bailey	LABAUN	T10	12517
3/1986	OF024-036003-	623439	716535	Motte, Castle & Earthworks	Castle - motte and bailey	Rathlihen	T14	13141
1/2009	OF005-027001-	601350	730386	Part of a monastic enclosure, mill race, part of monastic complex interior	Ecclesiastical enclosure	Clonmacnoise	T01	13197

National Monument 504 Gallen Abbey

Gallen Abbey and associated monuments is located c. 4.1km south-west of the nearest proposed turbine, T3. The abbey was built near the site of an early Christian monastery and excavations carried out here in the 1930s recovered 200 decorated slabs, at least 152 of which are included in the SMR and account for the large number of recorded monuments at this site (see Section 13.2.2.1.6 below). The ZTV demonstrates theoretical visibility of 11-15 proposed turbines from this location (Figure 13-7). The abbey is described on the Historic Environment Viewer (HEV) as follows:

OF014-029001- : Religious house - Augustinian canons : GALLEN

Description: Situated on a slight rise with river to the E. The ecclesiastical remains consist of a medieval church (OF014-029008-), early Christian cross-slabs (OF014-029003-), graveyard (OF014-029002-) and a bullaun stone (OF014-029005-). The Abbey which was built near the site of an Early Christian monastery founded by St. Canoc in 492 is now in a ruinous condition consisting of a long rectangular church (ext. dims. 23.9m E-W; 8.4m N-S; wall T 0.8m) built with roughly coursed limestone rubble with no architectural features evident. There is a N transept now blocked at the E end of the N wall (int. 7.5m N-S; 4.4m E-W; wall T 0.8m) with a destroyed window in the N gable. The interior of the abbey and sacristy are used as burial plots with a burial vault added to the W end of the S wall. There were several architectural fragments lying in the collapsed rubble along the walls of the church. The date of this church probably belongs to the 15th-century as mentioned by Armstrong (1908) who assigned such a date via the flamboyant E window which was recently destroyed by workers during recent graveyard clean up. The Early Christian cross-slabs are described by Lionard (1961 Vol. 61, 95-169) and are on display in a field to the N of the abbey on the site of a small 11th/13th-century church discovered during excavations by Kendrick in 1934-35. A small graveyard (OF014-029002-) was associated with the long rectangular church (ext. 71ft E-W; 24ft N-S) which had a small rectangular sacristy (int. 7.5ft N-S; 16ft E-W) attached to its NE corner. Most of the cross-slabs (OF014-029003-) which date from the 8th/11th-centuries (Harbison 1970, 206) came from this excavated area. 200 decorated slabs were discovered during this excavation and are described by Kendrick (1939 Vol. 69, 1-20). (Cooke 1875, 340-43; Macalister 1908, 323-27; Crawford 1913, 262-5; Crawford 1918, 178; Fanning and O hEailidhe 1980, 17-19).

Archaeological testing was carried out under licence no. 03E0202 on a proposed development site in the grounds of Gallen Priory Nursing Home, Ferbane, Co. Offaly, on 24-25 February 2003. The north edge of the site is within the area of constraint around ecclesiastical remains. Testing comprised the mechanical excavation of four trenches, varying from 30 to 100m in length. The stratigraphy comprised grey/brown sandy silt topsoil (0.4m deep) overlying yellow/brown and grey/white silty sand subsoil. Areas of grey fine to medium sand and grey coarse sand, gravel and cobbles were encountered across the tested area. A number of relatively modern features, including two sand pits and an old track/road, marked on OS 6-inch maps, were uncovered. Five further shallow features were found to be of probable post-medieval or early modern date. One of these yielded several small red-brick fragments and a potsherd, suggesting a 19th-century date. All are cut into sand, and gravel deposits may be broadly contemporary (Excavations Bulletin 2003). Dominic Delany, Unit 3, Howley Court, Oranmore, Co. Galway.

The above description is derived from the published 'Archaeological Inventory of County Offaly' (Dublin: Stationery Office, 1997). In certain instances the entries have been revised and updated in the light of recent research. Date of upload: 27 April 2009.

National Monument 82 Rahan Churches

National Monument No. 82 comprises two churches and associated monuments at Rahan Demesne townland c. 8.8km east of the nearest proposed turbine, T15. The churches are located in an area in which the ZTV demonstrates theoretical visibility of 11-15 proposed turbines (Figure 13-7). A photowire (PWVP-G) created from the monuments, however, demonstrates how existing natural screening

obscures the proposed turbines from view. The screening was also evident from the visit to the monument carried out for this assessment (Plate 13-1, Plate 13-2 and Plate 13-3). The monuments are described on the HEV as follows:

OF016-015001- : Church : RAHAN DEMESNE

Description: National Monument No. 82. Associated with St. Carthach who founded a monastery here in the sixth century. Present remains consist of two churches, a possible tower house an Early Christian cross-slab (Crawford 1916, 166) which was unlocated. The Protestant nave and chancel church is built around the chancel of a Romanesque cruciform church the N transept of which can still be seen while the nave was built in 1732 (Harbison 1970, 206-7). Inside the church are the well preserved remains of a triple ordered chancel arch with modern E window and original rose window which may originally have been located in the W gable is now located in the apex of E gable (Harbison 1970, 206-7). A small narrow round arched door on N and S wall of chancel gives access to the destroyed barrel vaulted transepts. To the E of this church are the remains of a rectangular church (OF016-015010) with fine Romanesque single ordered W door which was incorporated into a 15 - 16th century church. Directly over W door there is a rectangular slit window, round arched window of Romanesque date at W end of S wall, late medieval single light ogee window at E end of S wall and single light ogee window in E gable. The possible tower house (OF016-015009-) which has been previously classified as a church is located in the E corner of the Roman Catholic cemetery and is poorly preserved with traces of a barrel vault over the ground floor the springing of which is visible at the E end of the building; no other architectural features are visible. Two fragments of a late medieval floriated graveslab with partial inscription were recently found in the graveyard (OF016-015002-). Large ecclesiastical enclosure (OF015-015005-) now utilised as field boundaries to the S, E and W. 3D models of the chancel arch and of the Romanesque round window can be downloaded from Offaly County Council website at www.offaly.ie/eng/Services/Heritage/Archaeology/3D_Surveying_of_Archaeological_Monuments/ (O' Flanagan 1933, vol. 2, 48-9; Stanley 1870-1, 27-9; Johnson-Newman 1971, 169-70)

Testing was carried out under licence no. 04E0759 in advance of proposed drainage works in the graveyard located on the south side of St Carthage's Church, Rahán, Co. Offaly. The nave-and-chancel church is still used by the Church of Ireland and the interior of the church building is badly affected by damp, especially in the chancel area. Testing was carried out to assess the impact of these drainage works on any potential archaeological features and finds in the vicinity of the church. This involved the manual excavation of two trenches in the area of the graveyard adjacent to the south side of the church building, to ascertain the archaeological nature of the soil that has accumulated to a height of 1m against the external facade of the nave and chancel walls. There are a number of post-medieval grave markers visible in the vicinity of the south wall of the church and the test-trenches were laid out in order to avoid these. A number of east-west-orientated skeletons were uncovered following the removal of the topsoil layer in both test-trenches. These were all contained in unmarked graves with no visible traces of coffin remains; they were left in situ. Following consultation, it was agreed that no further excavation was required at this time, as the testing had confirmed that there were unmarked burials located in the vicinity of the area to be impacted on by the proposed drainage works (Excavations Bulletin 2004). Tony Cummins for Sheila Lane and Associates, AE House, Monahan Road, Cork.

The above description is derived from the published 'Archaeological Inventory of County Offaly' (Dublin: Stationery Office, 1997). In certain instances the entries have been revised and updated in the light of recent research. Date of upload: 23 April 2009.



Plate 13-1: Romanesque doorway of church at Rahan Demesne.



Plate 13-2: Church at Rahan Demesne, looking E.



Plate 13-3: Existing natural screening near to National Monument No. 82 Rahan Churches, looking NW.

National Monument 336 Clonfinlough Stone

This monument comprises a large earthfast boulder the surface of which is covered with water solution holes, incised lines and several other unusual symbols or features. The lower part of the stone contains eleven motifs called 'phi figures' which consists of an oval shape similar to a Greek letter ϕ with vertical line descending down from the oval shaped head. While some of the marks on the stone are natural, it has been concluded that at least some of them and in particular the 'phi figures' are artificial. It has been suggested that they may interpreted as a version of the cross motif or as anthropomorphic figures, and that they probably date from the historic period and may be associated with the monastic site of Clonmacnoise. The ZTV suggests theoretical visibility of 11-15 proposed turbines from the location of this National Monument which is situated just over 10km from the nearest proposed turbine, T01. It is described on the HEV as follows:

OF006-038—: Rock art: CLONFINLOUGH

Description: National Monument No. 336. Located on SW facing slope of rising pasture with good views of Fin Lough located 360m to SW. Large earthfast boulder (dims. 3m E-W x 2.8m N-S; max. H 0.75m) known today as 'The Clonfinlough Stone' and previously known as the 'Fairy's Stone' and the 'The Horseman's Stone' (Graves 1865, 360) the surface of which is covered with water solution holes, incised lines and several other unusual symbols or features such as elongated crosses some of which may be artificial while others are the result of natural weathering. It has been suggested that similar decorated stones in NW Spain have been dated to the Bronze Age (Jackson 1967, 11-19). The surface of the stone is decorated with a series of cruciform shapes, incomplete T-shaped lines, a possible representation of a footprint and several longitudinal and transverse lines. It has been suggested that many of these symbols or lines may be fortuitous, the result of dip and strike joints modified and deepened by chemical solution. However, it has also been concluded that some or all of the original solution-modified grooves may have been retouched or deepened artificially (ibid. 11-19). Graves suggested that the footprint on the surface of the stone may indicate that the boulder was used as an Inauguration stone (Graves 1865, 361; Fitzpatrick 2004, 115, 239). The lower part of the stone contains eleven motifs called 'phi figures' which consists of an oval shape similar to a Greek letter ϕ with vertical line descending down from the oval shaped head.

In 2002 the carvings on the stone were re-evaluated by Shee Twohig (2002, 99-113) who concluded that 'the ovals or Ds forming the phi motifs must clearly be accepted as artificial. It is possible, therefore, that this boulder may have had naturally occurring circular and elongated hollows and possibly some longitudinal grooves more or less symmetrically arranged to form crosses, together with ovals to form phi motifs' (Shee Twohig, 2002 105). Shee Twohig suggests that the phi motif could be interpreted as a version of the cross motif or as anthropomorphic figures (ibid., 108) and that these motifs probably date from the historic period possibly associated with the monastic site of Clonmacnoise (ibid., 109).

See attached screenshot of 3D model of Clonfinlough stone created by Digital Heritage Age under the direction of Gary Dempsey and Orla Peach Power. Photogrammetric 3D model can be accessed at the following website: <https://skfb.ly/6szwS>

The above description is derived from the published 'Archaeological Inventory of County Offaly' (Dublin: Stationery Office, 1997). In certain instances, the entries have been revised and updated in the light of recent research. Compiled and revised by: Caimin O'Brien. Date of revised upload: 25 January 2016

This monument is subject to a preservation order made under the National Monuments Acts 1930 to 2014 (PO no. 44/1935).

National Monument 81, 250, 601 Clonmacnoise

The National Monuments at Clonmacnoise comprise a monastic complex containing multiple archaeological monuments including a Cathedral, nine churches, two round towers, three high crosses and over 700 grave slabs. An Anglo-Norman castle and an associated field system which are located a short distance to the south-west of the monastic complex are also included in National Monument No. 81. The monastery at Clonmacnoise was founded by St Ciaran in the 6th century and became a very important and powerful centre, in part due to its strategic position on the River Shannon. It was also situated on the borders of two of the great kingdoms of early medieval Ireland – Connacht to the west, and Mide (Meath) to the east – and the site prospered from its close relations to both ruling dynasties (<https://www.tuatha.ie/clonmacnoise-monastery/> accessed 4th November 2025). Clonmacnoise became an important centre of pilgrimage and was at the crossroads of two major routeways of Ireland – the aforementioned River Shannon and the Slí Mhór or ‘Great Way’, a road which traversed Ireland from East to West and is believed to have once connected the great royal and monastic centres of early medieval Ireland. Important monastic centres such as that at Clonmacnoise were surrounded by a large thriving settlement and the large estate held by the monastery would have been worked by a large community of lay people including skilled craftspeople. A large monastic enclosure would have enclosed the site and in the case of Clonmacnoise which had three enclosures would have contained much of the settlement surrounding the monastery. Such was the size of Clonmacnoise, it would have been surrounded by one of the largest early medieval populations outside of the Viking centres of Dublin, Waterford, Limerick and Cork. The arrangement of the three concentric enclosures and the location of the lay settlement within allowed for the development of a large, nucleated settlement with a substantial lay population, while maintaining the integrity of its sacred core (ibid.).

As detailed in Section 13.1.4.5, the OCDP notes the importance of Clonmacnoise and illustrates Clonmacnoise Heritage Zone (see Figure 13-2 above). The Proposed Project is located over 11km to the east of the monastic centre with the nearest proposed turbine (T01) located over 13km from the National Monuments therein. In this regard the Proposed Project is situated outside of the Clonmacnoise Heritage Zone and at a distance of c. 10km from the Primary Area as denoted in Figure 10.7 of the OCDP. The ZTV demonstrates partial theoretical visibility of the proposed turbines from the National Monuments at Clonmacnoise, however, Photowire PWVP-C clearly illustrates how existing natural screening will effectively screen the proposed turbines from view from within the monastic site.

As a significant number of recorded monuments which fall under National Monument no. 81 are present at Clonmacnoise only the HEV entry for the Cathedral (OF005-004001-) is presented here as follows:

OF005-004001- : Cathedral: CLONMACNOISE

Description: National Monument No. 81. Rectangular church (ext. dims. 22m E-W; 10.9m N-S; wall T 0.9m) built with roughly coursed rubble with four distinct building phases evident. The earliest 10th/11th-century phase (int. dims. N-S 10.9m; E-W 19m) is indicated by the presence of Antae at both ends of the church (Clapham 1939, 17). The next phase appears in the 13th-century with the insertion of the W doorway (Manning 1994, 25) with four orders and the sacristy or chapter house (ext. dims. 6.45m N-S; 6.8m E-W) which was added to the E end of the S wall. The sacristy/chapter house which is marked as 'Black Cell' on Balymires map 1738 is lit by two single light round headed windows set in widely splayed embrasures. The doorway from the sacristy/chapter house to the church has a pointed arch with concave hood moulding above with diagonal stone tooled jambs indicating early medieval date. The hood moulding is similar to the hood moulding which survives over the door in the nearby Temple Ri (OF005-007001-) which is also dated to the early 13th-century (Leask 1966, vol. 2, 59). In the late 13th/14th-century the S wall was moved Northwards (pers. comm. Manning) with the insertion of a single light gothic style lancet the rear arch of which still survives at the E end of the S wall. The sacristy/chapter house was extended northwards with the insertion of the double sedilia in the S wall. The fourth and final phase was in the mid-15th-century when a simple twin light Y tracery window was inserted into the S wall at the E end replacing the lancet light. During this phase the rib vaulting carried on columns two bays deep three bays wide was inserted at the E end of the church along with the insertion of the N doorway. The pointed limestone door at the W end of the N wall known as Dean

Odo's door is in the perpendicular gothic style and is finely decorated with dragons, angels and ogee headed panels. There are three saints carved over the door representing St. Dominick, St Patrick and St. Francis. The sacristy/chapter house had a second floor (int. dims. 5.1m E-W; 5.7m N-S; wall T 0.9m) inserted over the ground floor possibly in the 15th-century with fireplace and octagonal chimney stack with funnel shaped cap. At the W end there are several architectural fragments. Aumbry and piscina at E end of S wall both display evidence of diagonal stone tooling indicating an early medieval date for their construction. Possible bullaun stone known locally as the wart stone located outside the N wall at the E end. (O' Donovan 1856-7, 447; Monahan 1886, 64-5; Westropp 1907, 282-6; Mac Alister 1910, 24; Kahn 1913; O'Flanagan 1933, vol. 1, 61-2; Molloy 1950, 6-7; Harbison 1972, 204)

The above description is derived from the published 'Archaeological Inventory of County Offaly' (Dublin: Stationery Office, 1997). In certain instances, the entries have been revised and updated in the light of recent research. Date of upload: 23 May 2011

National Monument 313 & 678 Durrow Abbey

A monastery was founded at Durrow in the 6th century, reputedly by St Columcille. The complex of monuments which are located at the site today date to both this early medieval period of the site's history and to the late medieval period. Monuments dating to multiple periods are included in National Monument No. 313 and comprise the late medieval church (OF009-005013-) and associated graveyard (OF009-005009-), the site of an Augustinian abbey (OF009-005008-), high crosses (OF009-005006- and OF009-005007-), an ecclesiastical enclosure (OF009-005003-), a motte (OF009-005001) and a castle – unclassified (OF009-005002-).

The church at Durrow Abbey is located c. 14km east of the nearest proposed turbine, T15. The ZTV demonstrates theoretical visibility of 11-15 proposed turbines from some areas of the monument complex at Durrow Abbey. It is noted, however, that the area in question is enclosed by dense pockets of woodland which will effectively screen the Proposed Project from view.

As a large number of recorded monuments which fall under National Monument no. 313 are present at Durrow Abbey only the HEV entry for the church OF009-005013-is presented here as follows:

OF009-005013- : Church: DURROW DEMESNE

Description: National Monument No. 313. In centre of graveyard, a late medieval church (ext. dims. 21m E-W; 8m N-S) which according to Davies (1942) was mainly rebuilt in 1802. The W doorway with its flat head, scroll brackets, scroll keystone with three urns over door indicates a late 17th/early 18th-century date for its erection. The interior was inaccessible due to the dangerous condition of the church. On the floor just inside the door there is a late medieval graveslab (OF009-005017) dated 1665 and carved pear shaped head (OF009-005018) with bulging eyes, pursed lips and undulating cheeks on the W wall (Davies 1942). The graveyard contains a well preserved 10th century high cross (Nat. Mon.) and several early Christian cross-slabs (De Courcy Williams 1897) now incorporated into the graveyard wall to the W of the church. There is a small rectangular shaped stone (H 0.6m) which tapers towards the top with rectangular socket (0.2m by 0.25m) presumably the base of a small cross. A small cross which was on the E gable and now in the Nat. Museum may belong to the above cross socket (De Courcy Williams 1897, 128-9). No surface trace of ecclesiastical enclosure (OF009-005003-) (Orpen 1907, 140) or Augustinian abbey (Hadcock 1964, 128). (Crawford 1913, 262-65; Lionard 1961, 95-169; Moran 1966, 289; Harbison 1972, 205-6; Barrow 1979, 176) A monastery was founded at Durrow reputedly by Colum Cille [of the church] who died in 597 and whose feastday is celebrated on the 9th of June (Ó Riain 2011, 213-14). He established a monastery at Iona in Scotland and is the earliest known founder of a church outside of Ireland (ibid., 212). Over sixty churches claim to have been founded by Colum Cille many of which have no historical documentation to support their claim (ibid., 213). The present late 18th century C of I church (OF009-005013-) standing in the SE quadrant of the graveyard was probably built or incorporated fabric of the medieval parish church of Durrow which in turn was probably built on the site of the Augustinian Abbey church founded in the 12th century. The Augustinian abbey dedicated to St Mary was founded in the 1140s by Murchadh Ua Maoil

Sheachlainn, high king of Midhe, who died at Durrow in 1153 (Ó Riain 2011, 67; Gwynn and Hadcock 1970, 174). In 1541 the Abbey was converted into a parish church and was restored in the 17th and 18th centuries and once more in 1802. Bishop Dopping's Visitation Book of 1682-85 described the church at Durrow as 'a parochial church belonging to the Monastery of Durrow. Church and chancel ill repaired [Lately in repair but much out of order by the troubles (1693)]' (Ellison 1975, 4-5). The Visitation book goes on to state the church contained a 'reading desk and pulpit but no font. A table but not railed, no carpet, cloth chalice or flagon' (ibid., 5). The church in 1682-5 possessed no bells, it had two windows that were glazed, a clay floor and a shingled roof (ibid. 5). The churchyard or graveyard (OF009-005009-) in 1682-5 was at that time enclosed or 'fenced' in by a stone wall (ibid., 5). According to the Parliamentary Gazetteer of Ireland of 1844-45, St. Columba's C. of I. church at Durrow was 'built many years ago at the private expense of Mrs. Fox' (Anon 1846, 166). Reverend De Courcy Williams (1897, 143) recorded that in 1733 the parish church of Durrow was out of repair and Mrs Frances Fox who was the daughter and heiress of Sir Edward Herbert of Durrow 'pulled the church down and rebuilt it at her own expense'.

In the SE quadrant of Durrow graveyard (OF009-005009-), a late 18th century church (ext. dims. 21m E-W; 8m N-S) probably built on the site of or incorporates fabric of the medieval church which according to Davies (ITA Survey 1942) was mainly rebuilt in 1802. The W doorway with its flat head, scroll brackets, scroll keystone with three urns over the door indicates a late 17th/early 18th-century date for its construction. The church has been recently converted into a heritage centre by the OPW and now houses the Durrow high cross which formerly stood in the graveyard to the W of the church. During these conservation works a 17th-century graveslab (OF009-005017-) dated 1665 was moved from inside the church and is now located up against the inner face of the N wall of the graveyard. The remains of a carved pear shaped head (OF009-005018-) with bulging eyes, pursed lips and undulating cheeks can be seen high up on the external face of the W wall of the church (ITA Survey 1942). The graveyard contained several early Christian cross-slabs (OF009-005015-/020-) that have been moved inside the church and mounted on the internal face of the S wall. A small cross which was on the E gable of the church is now housed in the National Museum may belong to the above cross socket (De Courcy Williams 1897, 128-9). No surface remains visible of the ecclesiastical enclosure (OF009-005003-) (Orpen 1907, 140) or of the 12th century Augustinian abbey which may have been located inside Durrow graveyard (Hadcock 1964, 128). In 2006 limited excavations were undertaken by Tracy Collins of Aegis Archaeology Ltd at Durrow under licence No. CO02, E3161, as part of the ongoing conservation works at the national monument, on behalf of the OPW. Three areas were investigated. Two were dug around the church in order to facilitate the rendering of the structure and ducting. The third area was around where the high cross had stood. (It was moved for conservation reasons inside the church structure.) Nothing of an archaeological nature was discovered in the first two areas; two skeletons were left preserved in situ.

An area around where the cross had stood measuring 5m by 5m was opened to address the following research questions: Was the cross in its original position? What was it sitting on? Was there an earlier cross? Further information was required on the context of a cross slab excavated by De Paor in 1954: did it cover a grave, for instance?

The excavation around the cross site showed that burial had occurred to the north, south and east of the cross base. Seventeen individuals were excavated, along with much disarticulated remains. Initial examination suggests that all the burials were late in date, probably none earlier than the 18th century. The cross appears to have been in its original (early medieval) position, in that all burials respected the location of the cross base. The cross rested on a layer of redeposited boulder clay, which contained a few fragments of animal bone. There was no evidence of an earlier timber cross at this location, nor was there any evidence of burial beneath the cross. The excavation results would suggest that the cross slab found by De Paor did not cover a specific grave but may have been placed to the east of the cross in order to 'close' that area from any further burial – perhaps placed there in the 19th century. Finds from the excavation included coffin nails and fittings, holy medals and a few shroud pins. Nothing of clearly early medieval date was recovered. A series of radiocarbon dates is proposed for the site, including the animal bone fragments recovered from beneath the cross base, which should provide

a firm sequence for burial at the site and a date for the redeposited layer beneath the cross (Collins 2009, 449).

The above description is derived from the published 'Archaeological Inventory of County Offaly' (Dublin: Stationery Office, 1997). In certain instances, the entries have been revised and updated in the light of recent research. Compiled by Caimin O'Brien. Date of upload/revision: 07 November 2011

National Monument 223 Bealin Cross

One National Monument (No. 223 Bealin Cross) located within 15km of the nearest proposed turbine (T10) is located in county Westmeath. Also known as Twyford Cross, it is thought to have been originally located in the old graveyard of the ecclesiastical site 'Íseal Chiaráin' which is situated c. 450m to the north in the grounds of Twyford House. Íseal Chiaráin is thought to be the 'the low place of St. Ciaran of Clonmacnoise', however, no surface remains of any fabric belonging to an ecclesiastical site or early medieval monastic site are now visible at Twyford. The present location of the cross is in pasture on a hill in the townland of Twyford. The ZTV demonstrates theoretical visibility of 11-15 of the proposed turbines from this location, albeit at a distance of c. 14.5km from the nearest proposed turbine, T10. The cross is described on the HEV as follows:

WM029-008—: Cross - High cross (present location): TWYFORD

Description: National Monument No. 223. In 1837 the Ordnance Survey recorded the following about the location of Bealin High Cross; 'On Cross hill in the parish of Ballyloughloe there is a curiously sculptured ancient cross said to have been removed thither from an old graveyard (WM029-009002-) in Twy [ford] by the father of the present Lord Castlemaine. No trace of this graveyard is now visible, but the cross proves that there was an ancient church (WM029-009—) there' (OSL 1837, vol. 1, 68).

Bealin High Cross described by Harbison (1992, vol. 1, 25-6) as following; 'The cross now standing on top of a hill in the former Twyford demesne, close to a lane leading northward from Bealin Post Office, is almost certainly not in its original location. It is said to have formerly stood beside a well (WM029-009001-) in the demesne. Henry assumed that it was taken from Clonmacnoise, but there would not appear to be any evidence that it is to be identified with a cross marked with the letter R on Blaymires' 17th century view of Clonmacnoise. Its original location must remain a mystery. The cross stands to a height of about 2.1m above a modern base and is 27cm thick. Its north arm has been badly damaged, but the original width across the arms must have been about 1.06m. Of the ring, only the lower segment of the south side has been preserved, and its edges have raised mouldings of the same kind as found on the shaft and arms of the cross.

EAST FACE

Shaft: A lion, with projecting tongue and raised tail above its back, proceeds to the left at the bottom of the shaft. Above it, birds with elongated necks have tails which coil into a spiral, where they interlace with a ribbon-bodied animal. The head of one of the birds can clearly be seen to have an ear-lappet. Above the second bird there is another animal with a tail which interlaces in spiral fashion with the second bird's neck, and with its head placed in the upper left-hand corner of the panel.

Head: The centre of the head is occupied by a square panel with a two-strand interlace, above which there is a double three-pointed knot of interlace. The south arm bears a lion similar to that on the bottom of the shaft and - like it-also turning towards the left.

SOUTH SIDE

S1: A ribbon-bodied animal forming a flat interlace, with its head on top and its fish-like tail below.

S2: A lyre-like design, consisting of a pelta shaped C-spiral rising upwards to two outward-coiling spirals.

S3: A panel of single-strand loose interlace. The underside of the ring bears interlace ornament. End of arm: The end of the arm bears a panel of two-strand interlace.

WEST FACE

W1: Inscription. An inscription, unusually in raised lettering, reads OROIT AR TUATHGAIL LAS DERNATH IN CHROSSA - A prayer for Tuathgail who had the cross made. The letter S is placed the wrong way round in each case.

W2: Four circular interlacing devices.

W3: A two-strand interlace terminating above in two bird-heads with interlocking beaks. Between the birds' necks there is a raised knot of interlacing with a sunken cross-shape in the centre.

Head: A round knot of interlace is placed in a raised circle at the centre of the head, surrounded by a further circle of single-strand interlacing framed by a further raised circle. The south arm has loose interlace enclosing a round knot of interlace, similar to that between the birds' necks on the shaft. The decoration of the north arm is similar, though more worn, while the ornamentation of the top of the cross has been completely obliterated.

NORTH SIDE

N1 : Hunting scene -(Porter-Fergus hunting the stag with Tuiren). The bottom of the panel is occupied by a horseman with a crook, and by a three-pointed knot of interlace above the hindquarters of the horse which prances towards the right. Above them a dog, facing left, bites one hind leg of a stag facing towards the right.

N2 : A cross-shaped step-pattern with central square boss, and with L-shapes in the corners of the panel.

N3: Interlace.

The ring has been broken away, as has also the end of the north arm.' (Harbison 1992, Vol.1, 26-7).

SIDE 1 :

Panel 1 : two animals one above the other, enmeshed in a narrow band of interlace. The tail of the upper animal terminates in a triangular shape in the centre of the panel.

Panel 2 : A single-strand interlace.

Panel 3 : Interlinking C-shaped spirals forming pelta-shapes, terminating in two outward-turning spirals at the top.

Panel 4 : A damage coiled animal (head missing) with a fish-like tail.

Face 2

Panel 1 : A human interlace with the legs intertwined at the centre and the bodies radiating outwards to the corners. A narrow ribbon winds its way around the arms of the four human figures.

Panel 2 : A deer with its front right leg caught in a rectangular trap.

Panel 3 : A horseman, with hair flat on top and falling to a curl behind, holds a crozier in his right hand which emerges from the folds of his cape-like garment. He has no stirrups, and his legs are placed well forward as the horse prances proudly to the right. Above is a partially-damaged prancing lion with protruding tongue, also facing towards the right. Its tail rises behind, and terminates in two leaf-like shapes.

SIDE 2 :

Panel 1 : A tall panel bearing interlace of various kinds which terminate in animal-heads with rope-like necks and ear-lappets, and with their mouths biting the interlace.

Panel 2 : Very similar to panel 3 on side 1.

Panel 3 : Interlace terminating below in animal-heads which bite the interlace. A broad groove at the top suggests that a ring may have been inserted secondarily to support the arms of a cross'.

See attached screenshots of 3D model of Bealin High Cross created by Digital Heritage Age. 3D model can be accessed on the Sketchfab website at: <https://skfb.ly/6vMYT>

Compiled and revised by: Caimin O'Brien. Date of revised upload: 16 January 2018

Preservation Order No. 49/1937 Coole Castle

This monument subject to a Preservation Order comprises a tower house OF015-017— located c. 4km south-west of the nearest proposed turbine, T3. The ZTV demonstrates theoretical visibility of 11-15

proposed turbines from this location (Figure 13-7). A photowire (PWVP-H) created from the monument, however, shows how existing natural screening largely obscures the proposed turbines from view with only three turbines partially visible on the horizon line. The tower house is described on the HEV as follows:

OF015-017— : Castle - tower house : COOLE (Garrycastle By.)

Description: Situated on flat well drained land with river Brosna to the S. Well-preserved rectangular four storey tower house (ext. dims. 8.7m N-S; 10.4m E-W; wall T 2m) built with roughly coursed limestone rubble with slight base batter evident. Access is through a flat headed doorway in E wall with murder hole above, guard room in the NE angle and spiral stairs in the SE angle. Lobby area has a series of small rooms orientated N-S directly above murder hole which are accessed from the corresponding main chamber at each level except the room at attic level which is accessed from the spiral stairs and from the small room the barrel vaulted attic is accessed. The main ground floor chamber is accessed from the lobby area and is lit by three ogee headed windows set in widely splayed embrasures with wicker centring. Off the spiral stairs at first floor level there is a mural passage running E-W along the S wall leading to a garderobe in the SW angle which has a triple leaf ventilator. Mural passage in the W end of the N wall at first floor level gives access to a garderobe in the NW angle. Access to the murder-hole over the lobby area from the NE angle which has a twin light transomed angle loop and triple ogee headed ventilator. There is a large flat headed fireplace at the W end of the N wall at second floor level with datestone of 1575 directly above mantelpiece. Also at this level there is a mural passage in the S wall at W end leading to a possible garderobe in the SW angle. Barrel vaulted attic over the second floor which is accessed from the barrel vaulted chamber over the lobby area. Above the vaulted attic at wall walk level there is a destroyed third floor with destroyed fireplace with rectangular chimney stack at the NE angle, also visible at this level is the other chimney stack of the second floor fireplace. All of the doorways area of the two centred type with punch dressed jambs and drafted margins with one doorway possessing chamfer stops at the base of its jambs. The windows are mainly of the ogee headed type with decorated spandrels and punch dressing forming decorative patterns similar to the mint in Carlingford, Co. Louth. Flat and round headed windows light the stairs and the mural passages with two of these windows possessing slop stones under their sills. Two musket loops are visible one being circular in shape the other cruciform. Blocked up external opening of garderobe chute at S end of W wall.

The above description is derived from the published 'Archaeological Inventory of County Offaly' (Dublin: Stationery Office, 1997). In certain instances the entries have been revised and updated in the light of recent research. Date of upload: 23 May 2011

This monument is subject to a preservation order made under the National Monuments Acts 1930 to 2014 (PO no. 49/1937).

Preservation Order 8/1932 Ballynahinch Crannóg

This monument subject to a Preservation Order is located c. 10.8km to the north-east of the nearest proposed turbine, T15. It comprises a crannóg which was excavated in 1942. The ZTV demonstrates no theoretical visibility of the proposed turbines from the monument which is described on the HEV as follows:

OF001-001— : Crannog : BALLYNAHINCH

Description: A small island in Ballinderry Lough excavated by Hencken in 1942. The site consisted of two superimposed occupation layers, the lower layer dating to the Late Bronze Age and the upper one to the Early Christian period. The Late Bronze Age evidence comprised of a number of small wicker huts (diam. 1-2.5m) and the oak plank foundations of a square shaped building (dims. 11.5m x 11.5m). This particular settlement was abandoned following a rise in the level of the lake. The Early Christian period habitation consisted of a palisade of stout posts (diam. 0.3m) reinforced by an inner row of smaller posts delimiting a circular area (diam. 3.5m) with a timber floor and hearth. A dugout canoe was found just inside the inner row of posts at the S edge of the timber floor. A later brushwood road was

located to the SE of the crannog. (Hencken 1942, 1-84) The above description is derived from the published 'Archaeological Inventory of County Offaly' (Dublin: Stationery Office, 1997). In certain instances the entries have been revised and updated in the light of recent research. Date of upload: 23 May 2011. This monument is subject to a preservation order made under the National Monuments Acts 1930 to 2014 (PO no. 8/1932).

Preservation Order 6/1956 Ringfort

The ringfort at Broughal is located c. 11km to the south of the nearest proposed turbine, T03. It is situated in an area in which the ZTV demonstrates theoretical visibility of 11-15 turbines. It is described on the HEV as follows:

OF023-010— : Ringfort - rath : BROUGHAL

Description: Roughly oval shaped area (diam 36m N-S) enclosed by two earthen banks with intervening and external fosse. Inner bank (With 6m at base; int. H 1m; ext. H 2m), external bank (With 7m at base; int. H 1.8m; ext. H 2m). Intervening fosse (With 1.6m) and external fosse (With 2.2m; ext. D 1.4m). Possible entrance gap (With 3m) at SE. The above description is derived from the published 'Archaeological Inventory of County Offaly' (Dublin: Stationery Office, 1997). In certain instances the entries have been revised and updated in the light of recent research. Date of upload: 23 May 2011 This monument is subject to a preservation order made under the National Monuments Acts 1930 to 2014 (PO no. 9/1956).

Preservation Order 86/1940 Clonony Castle

This monument comprises a tower house located in Clonony More townland c. 11.2km south-west of the nearest proposed turbine, T02. The ZTV demonstrates theoretical visibility of 11-15 turbines from the area of the monument which is described on the HEV as follows:

OF022-008001- : Castle - tower house : CLONONY MORE

Description: Situated on top of natural rock outcrop in undulating countryside. Three storey tower (10.75m E-W; 8.2m N-S; wall T 2.1m) built with roughly coursed limestone rubble entered through a rebuilt door in the W wall which is protected by a machicolation now destroyed at wall-walk level with a later inserted window directly below. Inside door there is a murder-hole above with an intramural chamber which is accessed from the first floor. Spiral stairs in the SW angle from which all main chambers are accessed. The main chamber at ground floor level is accessed from the lobby area via a two centred pointed door with finely punch dressed jambs. The vaulted first floor gives access to a garderobe chamber in the NE angle and the intramural chamber in the W wall. Access to third floor via the spiral stairs which is now destroyed. Windows mainly consist of ogee heads with some simple flat and round headed windows. The windows at ground floor have been altered considerably as has the rest of the tower especially the inner bawn wall which appears to be a late 18th/19th-century addition. The bawn wall (OF022-008003-) is attached to the NE corner where it blocks the garderobe chute opening, smaller inner bawn structure in front of the main W door which has crenellations with brick infill and a pointed entrance with steps leading up to it. The round arched main entrance with its crenellated wall appear to be a later construction possibly 19th-century. The main entrance on the W wall of the bawn is constructed from worked stones of another structure possibly an earlier entrance. Two square towers at either end of the W wall with original coat of arms plaque over entrance now removed. Bawn is not depicted on Petrie's 19th-century drawing of Clonony Castle. Inner bawn of probable mid 19th-century date, while the outer bawn has been rebuilt in places during the 19th century. Mac Coghlan castle mentioned in the A.F.M in 1519 (ITA Survey 1942). (Anon 1868-69, 85-7; Cooke 1875, 330-32; O'Flanagan 1933, vol. 1, 85; Harbison 1970, 205) Archaeological testing under licence no. 03E1292 in advance of the development of a programme of conservation and renovation of Clonony Castle, Clonony More, Co. Offaly, was carried out. The early 16th-century three-storey tower-house, with later 18th/19th-century inner and outer bawn areas, has been acquired by a new owner, who intends to renovate the structure as a private residence. Clonony Castle was one of several tower-houses in the possession of the MacCoughlan family, whose power base was in West Offaly during the

16th century. In the 17th century it came into the possession of Matthew De Renzi as part of the plantation of Delvin MacCoughlan. By the early to mid-19th century the castle had come into the possession of Edmond Maloney, who set about converting it to a more ornate residence. This included the enlarging of many of the original narrow apses of the tower-house and possibly the construction of the inner and outer bawn walls and the ancillary buildings that currently surround the structure on the west, south and east sides. Four trenches were manually excavated at different locations within the structure, to establish the nature and extent of original fabric beneath later adhesions. Trench 1 was located in the south-east corner of the parapeted walkway and measured 1.5m north-south by 1.3m. The trench revealed the presence of a slate cladding applied to the wall-walk, above the original wall fabric, protecting it and the modified wall plate from weathering. This work probably took place as part of the early 19th-century works to the castle and may represent a repeat of the earlier water management of the walkway. Trench 2 was located in the north-eastern corner of the second floor of the castle and measured 1m by 1m. It revealed that the original medieval fill of the vault is largely intact beneath the modern silty sediment, at a depth of 0.2m below the present floor level. The upper part of the vault fill has been partially quarried out with shallow, linear shafts, which acted as bedding for later 19th-century floor joists. Trench 3 was located in the western corner of the ground floor and measured 1.6m north-west/south-east by 1.2m. The earliest surviving clay floor surface of the castle was uncovered at a depth of 0.35m below the present floor level. It was covered with a thick layer of stony rubble, laid down as a make-up layer for the higher 19th-century floor level. Trench 4 was located in the doorway in the south wall of the ground floor, within an enlarged former window embrasure. The trench measured 2m north-south by 1.5m and was excavated to a depth of 0.24m below present ground level. The compacted upper metalled surface of the 19th-century floor was revealed in this trench; it was not removed (Excavations Bulletin 2003). Daniel Noonan, The Archaeology Company, Birr Technology Centre, Mill Island, Birr, Co. Offaly. Test-trenching was carried out under licence no. 04E1042 as part of the planning schedule for a single-house development adjacent to a tower-house (SMR 22:8) at Clonony More, Shannon Harbour. A series of trenches were excavated by mechanical digger at the house site, entrance and percolation area. No features or finds of archaeological significance were revealed (Excavations Bulletin 2004). John Purcell, 17 Balmoral Terrace, Dillon's Cross, Cork. The above description is derived from the published 'Archaeological Inventory of County Offaly' (Dublin: Stationery Office, 1997). In certain instances the entries have been revised and updated in the light of recent research. Date of upload: 27 April 2009. This monument is subject to a preservation order made under the National Monuments Acts 1930 to 2014 (PO no. 86/1940).

Preservation Order 1/1980 Ringfort

While the description of the monument in the list of monuments subject to Preservation Orders notes it as a ringfort, the monument description in the HEV describes it as a stepped ring barrow. It is situated in the townland of Ballymurry in County Westmeath, c. 11.2km to the north-north-west of the nearest proposed turbine, T10. The ZTV demonstrates theoretical visibility of 11-15 proposed turbines from the location of the monument which is described on the HEV as follows:

WM030-065— : Barrow - stepped barrow : BALLYMURRY

Description: Situated on top of a hill with commanding views of the surrounding countryside. According to local tradition this hilltop enclosure was the inauguration place of the Mac Amhalghaidh / Magawley clan (Cox 1972, 155). Fitzpatrick (2004, 171) however suggests that the bowl-barrow (WM030-104—) on Knockdomny Hill is the more likely location for the inauguration place of the Mac Amhalghaidh clan. Monument consists of a circular raised area or platform (diam. c. 29m) enclosed by an earth and stone bank, berm and outer bank. Gap in bank at W appears to be of recent origin, second gap in bank at NNE may be remains of original entrance feature. A trackway leading up to this possible entrance gap may be remains of an ancient pathway. The interior of the monument is divided by a field boundary consisting of a low bank and fosse running N-S. This field boundary is a later feature as it runs across and cuts into the enclosing bank and scarp of the monument at NNW. At the S end of this bank there are two stones set in line with the bank which suggests contemporaneity with this feature. The N stone (H 1.25m x 1.25m x 1m) is higher than the S stone which is more stump like in its

appearance. Large boulders and rock outcrop can be seen protruding from the surface of the interior and from the top of the enclosing bank. A small depression in the N quadrant of the interior facing onto the inner face of the enclosing bank may be the remains of a possible hut site or could be the remains of a small post medieval quarry hole. Ordnance Survey trig. station marking 387 ft OD located in centre of monument as depicted on 1837 ed. OS 6-inch map. Compiled by: Caimin O'Brien Date of upload: 21 July 2015 This monument is subject to a preservation order made under the National Monuments Acts 1930 to 2014 (PO no. 1/1980).

Preservation Order 3/1980 Motte and Bailey

Also located in County Westmeath this monument subject to a Preservation Order (3/1980) is situated c. 12.5km to the north of the nearest proposed turbine, T10. The ZTV demonstrates no theoretical visibility of the proposed turbines from the summit of the monument and theoretical visibility of 11-15 proposed turbines from the south-eastern edge of same. The monument is, however, heavily wooded which is likely to screen any theoretical visibility. It is described on the HEV as follows:

WM030-047— : Castle - motte and bailey : LABAUN

Description: Impressive motte with two baileys situated at NW end of glacial ridge running NW-SE with commanding views of the surrounding countryside. Medieval church site of Ballyloughloe (WM030-045001-) and graveyard (WM030-045—) containing Early Christian cross-inscribed slab with Goidelic inscription (WM030-046—) 120m to the W. The village of Mount Temple is located 280m to the W. The motte and bailey castle at Ballyloughloe was probably built c. 1180 by Hugh de Lacy as part of his military campaign through the Gaelic kingdom of Meath. Once possession of the lands of Meath had been secured, the lands of Ballyloughloe were then granted by De Lacy to Richard de Tuit [Tuite] as part of the Anglo-Norman settlement of the lordship of Meath. In 1206 the Annals of Clonmacnoise recorded that 'sonnes of Art O'Melaghlin preyed the town of Baleloughloe [Ballyloughloe], and burnt part thereof' (A. Clon., 221). In 1211-12 the Irish Pipe Roll records that Humphrey de Dene was renting the lands of Ballyloughloe which belonged to Richard de Tuit. In this year 'Humphrey de Dene renders account of £33 19s. 9d. fixed rent of Ballyloughloe for half a year' (Davies and Quinn 1941, 51). The castle of 'Lagholachan' appears to be the motte castle of Ballyloughloe that was restored c. 1215 to Walter de Lacy (Orpen 1911-20, 181). In this year the King 'commands Thomas de Legh that when the justiciary of Ireland shall have notified that Walter de Lacy has given security for the fine stipulated, Thomas shall deliver to Walter the castle of Laghelachon [Ballyloughloe]' (Cal. doc. Ire., 95). In 1234 Felim O'Connor, King of Connacht with his army 'came to Meath, burnt Balleloghluaha [Ballyloughloe] and Ardnurcher with many other townes' (A. Clon., 234). In 1907 the site was described by Orpen (1907, 273) as 'a typical Norman earthwork, fashioned out of an esker ridge, and apparently untouched since it bore its wooden tower and wooden palisades. The foundations of a stone wall 8 feet [2.4m] wide may, indeed, be seen running up the slope of the mote; but this was probably to support the bridge which connected the 'tower on high' with the bailey. In a hasty view, at least, I could see no other signs of a stone building. The mote is very steep and lofty, and the fosse surrounding it and connecting with the fosse round a shield-shaped bailey to the west is about 30 feet [10m] wide. To the east a crescent-shaped bailey was formed by cutting off the eastern extension of the esker by a strong rampart and fosse. Further to the east lies the nearly dried-up bed of the lough. The Irish name Baile locha luatha means 'the town of the lake of ashes', or 'of the dried-up lake'. Present remains consist of a high steep sided conical-shaped flat-topped mound (top diam. 14.3m NW-SE; base diam. c. 32m NW-SE; H c. 12m) the base of which is enclosed by a deep V-shaped fosse (base Wth 2.7m) which separates a high bailey area at the NW end of the ridge and a second bailey area to the SE. A shallow circular depression on the summit of mound may have been created by the Ordnance Survey in the 19th century when an OD station marking 420 ft was established on top of the motte. This OD point is marked on the 1837 ed. OS 6-inch map. No clear evidence of a stone wall measuring 2.7m wide described by Orpen in 1907 could be seen running up the slope of the motte. The footings of a low stone wall measuring 0.6m thick could be seen running up along the NW face of the motte connecting the bailey area to the motte which may be the same feature recorded by Orpen. An earlier site inspection carried out by the Archaeological Survey of Ireland in 1973 recorded the remains of a 'stone feature, this runs approx. from the base of the motte to about half way up the side of the motte. This

may be the remains of a stairway' (SMR File 1973). These possible 'steps' may be the same feature described by Orpen in 1907 as a stone wall. This feature on the W side of the motte was described by the Archaeological Survey in 1980 as 'there are traces of stone steps (?) set in the side of the motte on the W'. The dating and function of this feature is uncertain. It could be the remains of a structure built to support a bridge connecting the bailey on the NW side to the summit of the motte as suggested by Orpen in 1907. Alternatively it could be the remains of a post-medieval wall or steps providing access to the summit of the motte. The bailey to the NW of the motte consists of a high D-shaped area (dims. 25m NW-SE; 23.5m SSW-NNE) enclosed by a poorly preserved earth and stone bank mainly reduced to a scarp with a sunken rectangular depression (dims. 11m NW-SE x 4.1m NNE-SSW; D c. 1m) in SE quadrant and a second similar shaped depression (dims. 8.3m NW-SE x 7.6m NE-SW; D c. 1m) in S quadrant. Both of these depressions may be the remains of post-medieval quarrying although the regularity of their shape and lack of upcast material suggests they could be features of medieval date. The natural steeply inclined slope of the NW end of the glacial ridge provides the defensive feature on all three sides of this bailey area. A second crescent-shaped bailey area can be seen to the SE of the motte. This bailey area is defined by a well preserved earth and stone bank (top Wth 1.5m; int. H 1.3m; ext. H c. 2m) with external fosse (base Wth 2m; ext. D 1m) which runs across the glacial ridge forming a crescent-shaped bailey (dims. 16m NW-SE). No entrance gap could be identified in the external bank defining the bailey area to the SE. The enclosing bank on this side of the bailey runs across the ridge from N to S and then turns inwards towards the fosse enclosing the base of the motte forming a crescent shaped bailey in this area which wraps itself around the base of the motte from NNE-E-S-SW. The curving field boundary to the SE of the motte indicated on the revised 1910 ed. OS 25-inch map incorporates the enclosing bank of the bailey. The SE bailey protects the motte on the side which was the natural entrance point to the monument via the top of the high glacial ridge which continues on to the SE of the fortification. Today there is no enclosing bank visible around the base of the motte from N-NE where there is a flat-topped berm which may have been created when the enclosing bank was levelled possibly in the post-medieval period. There is no clear evidence for any entrance feature into either bailey and no surface evidence to suggest how the summit of the motte connected to the bailey area the SE. The footings of a low wall visible running across the fosse on the NW side of the motte may be associated with a flying bridge connecting the NW bailey to the summit of the motte. Compiled by: Caimin O'Brien Date of upload: 2 April 2014 This monument is subject to a preservation order made under the National Monuments Acts 1930 to 2014 (PO no. 3/1980).

Preservation Order 3/1986 Motte, Castle & Earthworks

This monument comprises a motte and bailey (OF024-036003-) located in the townland of Rathlihen, Co. Offaly. It is situated c. 13km to the south-east of the nearest proposed turbine, T14. The ZTV demonstrates theoretical visibility of 1-5 proposed turbines from this location. The monument is described on the HEV as follows:

OF024-036003- : Castle - motte and bailey : RATHLIHEN

Description: Located on a slight rise in undulating countryside with a medieval church (OF024-036—) to the N and poorly preserved tower house (OF024-036002-) to the E. Roughly circular conical shaped mound (max. diam 30m at base; c. 10m top diam ; H 4 - 5m) with remains of an enclosing fosse (max. Wth 3m) and outer bank except at W where there is a raised rectangular area (30m N-S by 35m E-W) defined by a poorly preserved scarp, probable bailey area. There is a hollow depression on the top of the motte and the top soil has been removed from the S side of the motte. (Cooke 1875, 230; O'Flanagan 1933, vol. 2, 47-8; Shaw 1971, 7-10) The above description is derived from the published 'Archaeological Inventory of County Offaly' (Dublin: Stationery Office, 1997). In certain instances the entries have been revised and updated in the light of recent research. Date of upload: 23 May 2011 This monument is subject to a preservation order made under the National Monuments Acts 1930 to 2014 (PO no. 3/1986).

Preservation Order 1/2009 Ecclesiastical Enclosure Clonmacnoise

This monument which forms part of the ecclesiastical enclosure at Clonmacnoise is located c. 13km to the west-north-west of the nearest proposed turbine, T01. The ZTV demonstrates theoretical visibility of 11-15 proposed turbines from this location, however, it should be noted that no theoretical visibility is noted from the monastic complex within the enclosure. It is described on the HEV as follows:

OF005-027001- : Ecclesiastical enclosure : CLONMACNOISE

Description: On top of NE-SW esker ridge overlooking Clonmacnoise and the river Shannon to the NW. Earthen bank (Wth 2m; H 0.7m) with outer fosse visible only in places traverses the top of this esker ridge and may have originally enclosed the ecclesiastical remains of Clonmacnoise as illustrated by Thomas (1971, 29-31). Possible second enclosure located further to the S (pers. comm. Donald Murphy). Archaeological excavations carried out by D. Murphy under licence no. 99E0715 prior to the construction of the tourist office at Clonmacnoise revealed evidence for the ecclesiastical enclosure, and two burials of a possible medieval female cemetery (OF005-066). An area measuring 16.65m east-west by 29.25m was excavated to the south of the existing tourist office building just north of the base of the slope of the esker ridge (Eiscir Riada). Significant archaeological features were exposed on the site, representing three distinct phases of activity. The most recent phase is characterised by the presence of cultivation furrows that run north-south through the cutting. The furrows were all roughly U-shaped, were generally evenly spaced and maintained a fairly consistent depth and width. Their alignment and consistency would indicate that they were all roughly contemporary. Near the north end, three of the furrows had associated post-holes and all three furrows were quite shallow, c. 0.05m. Nine pits were exposed cut into the natural, grey and brown sand below the cultivation furrows. These are probably roughly contemporary and, though no definitive dating evidence was recovered, are likely to post-date the infilling of the ditch (see below). Other, smaller features were exposed, including a possible stone setting, a spread of charcoal and iron slag, a linear slot-trench, a possible bowl-shaped furnace and an ash and charcoal spread. Two burials were also uncovered along the south baulk below the topsoil and cut into the natural sand. Both burials were extended female inhumations aligned east-west in simple grave-cuts. Burial 1 was that of an adult female aged between 25 and 30 years. This individual had a severe stress fracture of a vertebra and fractures to the first ribs and sternum. These may all have been caused by exerting extreme force such as was required for lifting or moving a heavy object. Although the fractures did not result in immediate death, they may have led to complications causing death a short time later. A sample of bone from the burial produced a radiocarbon age of 748±42 years BP, which gave a calibrated date range of AD 1252-78. Burial 2 was that of a female aged 35-50 years. This individual had suffered three broken ribs, possibly as a result of a blow or a falling object, and was already exhibiting signs of degenerative joint disease that would have become worse with increasing age. A sample of bone from the burial produced a radiocarbon age of 816±43 years BP, which gave a calibrated date range of AD 1182-1262. Both burials had some similar congenital abnormalities that may hint at a possible genetic link between the two. It is also possible that they lie on the northern fringes of a much larger cemetery. The burials occurred to the south of a large infilled ditch, 6.2m wide at the top and 1m wide at the bottom at the west end, and 5m wide at the top and 1.7m wide at the bottom at the east end. It was 3.7m deep at the west end and 3.8m deep at the east end. The ditch was roughly V-shaped in profile but with a flat bottom. The northern side was stepped, as was a portion of the south side in the south-west corner. There was clear evidence for slippage near the west end, where sands had slipped down into the bottom of the ditch along the northern side, indicating that perhaps there had been a bank along the north side originally. It would appear from the main fill, a sandy, grey-brown soil, that the ditch was filled in one episode rather than silting up over a long period of time. Animal bone recovered from the main fill provided a date of 1228±43 years BP, which gave a calibrated date range of AD 714-873. This would suggest that the ditch was purposely infilled during the 8th/9th century. The ditch represents an outer enclosing element of the early monastic complex. Dúchas applied to Offaly County Council for permission to install a new wastewater treatment system for the Visitor Centre at Clonmacnoise. Permission was granted for large septic tanks to the west of the existing system, with a direct outflow pipe to the Shannon. The work was to be monitored. Three test-trenches were opened under licence no. 02E1407 on the proposed location of the tanks on the crest of the esker to the north of the Visitor Centre, where limited archaeological deposits are known to exist.

Trench 1 was opened in an area that had been previously disturbed by the existing sewerage system; evidence was uncovered that some archaeological features survived intact, so the location of the tanks was moved farther west (see below). During the monitoring of the excavation of the trench three pits were discovered. Further test-trenches were opened on the line of the outflow pipe, and archaeological deposits were revealed at a depth of c. 0.3m on the raised ground between the existing percolation area and the Shannon flood-plain. Excavation of the pit for the tanks, 15m by 4m, revealed that the stratigraphy comprised 0.4-0.6m of redeposited material from the demolition of the schoolmaster's house that was situated to the west of the monastic site in the 1980s. This material lay above the original sod layer and an agricultural horizon under which was a black layer that produced cut antler, iron objects, charcoal, animal bone and some slag. A fragment of a rotary quern was also recovered from this feature. A section of a small hearth containing slag was noted in the north section face. Three pits were uncovered: two on the north (downhill side) of the cutting and one on the south. One pit (F4) on the north side contained yellow brick, piping and plastic refuse from the demolition work of the 1980s, and the other two (F2 and F5) were medieval. F2 had no stratified layers and produced animal bone, an iron knife and nails, a bronze pin fragment and a bronze, collared, stud-headed pin (11th-13th century). F5 had a number of deposits, with evidence of having been open for a considerable time, and produced iron objects, cut bone and antler, lignite, a bone bead fragment, a fragment of a hone and some slag. Further excavation was necessary on the high ground to the east in the area already tested, as an extra tank was required. The only stratified feature in this area was a platform of large stones measuring c. 1m by c. 3m. It consisted of a single layer of large stones, 0.2-0.5m, with small cobbles laid between. It had been curtailed to the north and south by the existing pipes and percolation area. The layer into which these stones were laid produced a bone pin tip and a piece of cut antler. Excavation in the trench for the outflow pipe has been discontinued but to date has produced evidence of extensive ironworking, stone settings, pits and hearths, as well as a number of early medieval finds. This will be reported on after completion of the excavation in 2003. Work has currently halted owing to adverse weather conditions and the rise of the Shannon in late October/November. Heather A. King, Skidoo, Ballyboughal, Co. Dublin. Excavation of a trench under licence no. 02E1407 for an outflow pipe to the Shannon in connection with a new wastewater treatment system for the Visitor Centre at Clonmacnoise, suspended last year due to flooding, was completed in March (Excavations 2002, No. 1565). The trench for the outflow pipe was 1m wide and c. 40m in length. The northern third of the trench was in the flood-plain of the Shannon and had no archaeological material. The river end of the middle section of the trench had been built up to raise the level of the ground above the high flood level.

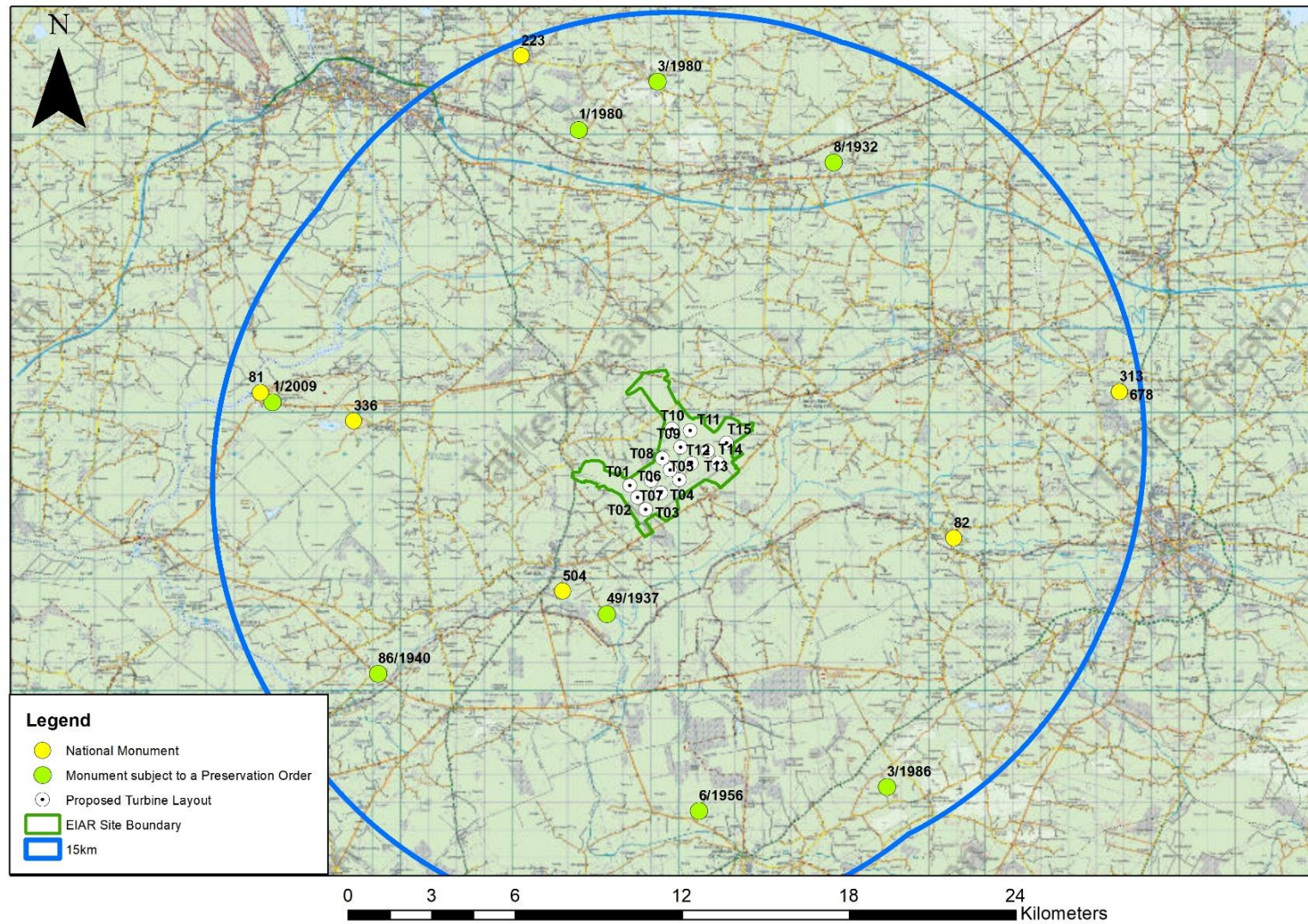


Figure 13-6: National Monuments and those subject to a Preservation Order within 15km of the nearest proposed turbine.

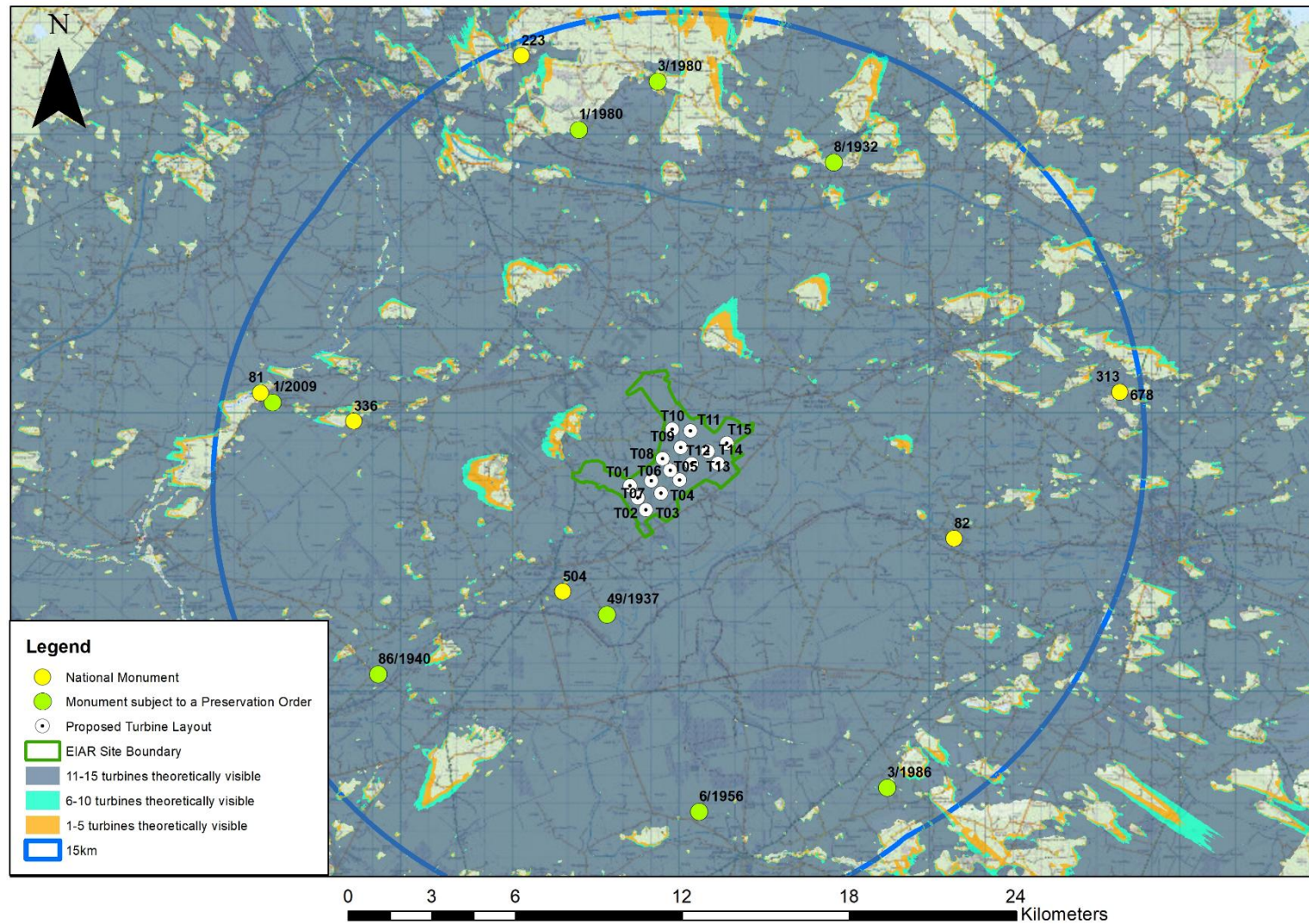


Figure 13-7: National Monuments and those subject to a Preservation Order within 15km of the nearest proposed turbine with ZTV.

13.2.2.1.3 Recorded Monuments within the Proposed Project site

The dataset for the SMR was downloaded from ArcGIS online and added to the base mapping for this assessment. This Archaeological Survey of Ireland (ASI) dataset is published from the database of the National Monuments Service Sites and Monuments Record (SMR). This dataset also can be viewed and interrogated through the online HEV. GIS software (ArcMap) was then utilised to calculate the number of recorded monuments located within the Proposed Project site.

Four hundred and ninety-one (491) recorded monuments are located within the Proposed Project site. The majority of these monuments were identified as a result of a peatland survey carried out within the site by the Irish Archaeological Wetland Unit (IAWU) in 1993-4 as part of the Archaeological Survey of Ireland Peatland Survey. During that survey a total of 470 sightings of archaeological material were made that were subsequently included in the Sites and Monuments Record (SMR).

A variety of monument types are located within the site but are typical of those found in a peatland environment which largely comprise roads (trackways or toghers of either stone or wood), and structures – peatland. The monument types and number of same within the site are discussed below.

Roads including Class 1, 2 and 3 toghers

One hundred and fourteen (114) roads are located within the Proposed Project site. They include Class 1, 2 and 3 toghers and gravel/stone trackways, each of which are described below.

Class 1 toghers

Nine (9) class 1 toghers (OF007-083—, OF007-215—, OF007-279—, OF007-280—, OF007-296—, OF007-329—, OF015-269—, OF015-270— and OF015-279—) are located within the Proposed Project site (Figure 13-9). Class 1 toghers comprise a peatland trackway/causeway constructed of wood and intended to traverse a bog and have a known orientation. In most instances they comprise substantial timber planks and have good structural definition. They may have several phases of construction indicative of long-term use and reuse. They may date from the Neolithic (c. 4000-2400 BC) to the medieval period (5th-16th centuries AD).

The class 1 toghers located within the site are located in varying locations therein with four located towards the east side of the site, two at the south, one at the west, one towards the north and one east of centre.

Class 2 toghers

Thirty-nine (39) class 2 toghers are located within the site (Figure 13-10, Figure 13-11, Figure 13-12 and Figure 13-13). They comprise a length of peatland trackway, constructed of wood, believed to be over 15m in length. They have a clear orientation and good structural definition and may date from the Neolithic (c. 4000-2400 BC) to the medieval period (5th-16th centuries AD).

The class 2 toghers within the site are spread out throughout same with a concentration at the west and towards the north.

Class 3 toghers

Sixty-three (63) class 3 toghers are located within the site (Figure 13-14, Figure 13-15, Figure 13-16 and Figure 13-17). Class 3 toghers comprise a short stretch of peatland trackway, constructed of wood, up to 15m in length with a discernible orientation. It may not be possible to trace them beyond a single sighting. They have evidence of deliberate structure and are interpreted as laid down to cross a small area of bog. They may date from the Neolithic (c. 4000-2400 BC) to the medieval period (5th-16th centuries AD).

The class 3 toghers within the site are again spread out throughout same with concentrations at the west, north-east and towards the north.

Road – Gravel/stone trackway

Three (3) gravel or stone trackways (OF007-327—, OF015-464— and OF007-350—) are located within the Proposed Project site (Figure 13-18 and Figure 13-19). These monuments consist of a roadway in a peatland context constructed wholly or substantially of gravel (including sand and clay), cobbles or stone slabs, or a combination of these. They predominately date to the medieval (5th-16th centuries AD) and later periods. The gravel/stone trackways within the site are located towards the west, north and east side of same. OF007-350— is still apparent within the site and can be traced both on the ground, on the most recent aerial imagery and on historic mapping for a length of over 750m. It appears to extend from Derryvane Island in the centre of Tumbeagh bog to dryland to the west where it appears to terminate at a 17th century house OF007-065— located outside and to the west of the site.

Structures - Peatland

This monument type accounts for the largest number of recorded monuments within the site with 371 present (Figure 13-21). They comprise wood found in peat, which has been deliberately deposited or processed and can vary from single pieces to deposits without a clear form or orientation but which are indicative of an archaeological structure. They may be of any date from the Neolithic (c. 4000-2400 BC) to the medieval period (5th-16th centuries AD). The vast majority of the structures within the Proposed Project site were identified as a result of the peatland survey undertaken by the Irish Archaeological Wetland Unit (IAWU) in 1993-4 as part of the Archaeological Survey of Ireland Peatland Survey.

Platform – Peatland

Three platforms (OF007-346—, OF007-347— and OF007-348—) are located within the Proposed Project site and were identified as part of the Reassessment Peatland Survey 2013 (Whitaker, 2014) (Figure 13-20). These monuments comprise a non-linear artificially raised area, usually of wood, with or without a clear shape found in a peatland context. Although platforms can vary in size, the length rarely exceeds the width. They may date to any period from prehistory to the early medieval period (5th-12th centuries AD).

Post Row – Peatland

One post row (OF015-345—) is located within the Proposed Project site (Figure 13-20). It is situated towards the west side of same adjacent to a large cluster of recorded monuments. Post rows comprise a line of related posts, including stakes, in a peatland context. In certain instances, they may be the vestigial underpinnings of single-plank toghers and may date from prehistory (c. 8000 BC - AD 400) to the early medieval period (5th-12th centuries AD).

Enclosures

Two enclosures (OF007-048— and OF007-049—) are located within the Proposed Project site (Figure 13-20). According to the monument descriptions neither are visible at ground level with OF007-048— indicated on the historic OS mapping and OF007-049— visible on a Geological Survey of Ireland (GSI) aerial photograph taken in 1973.

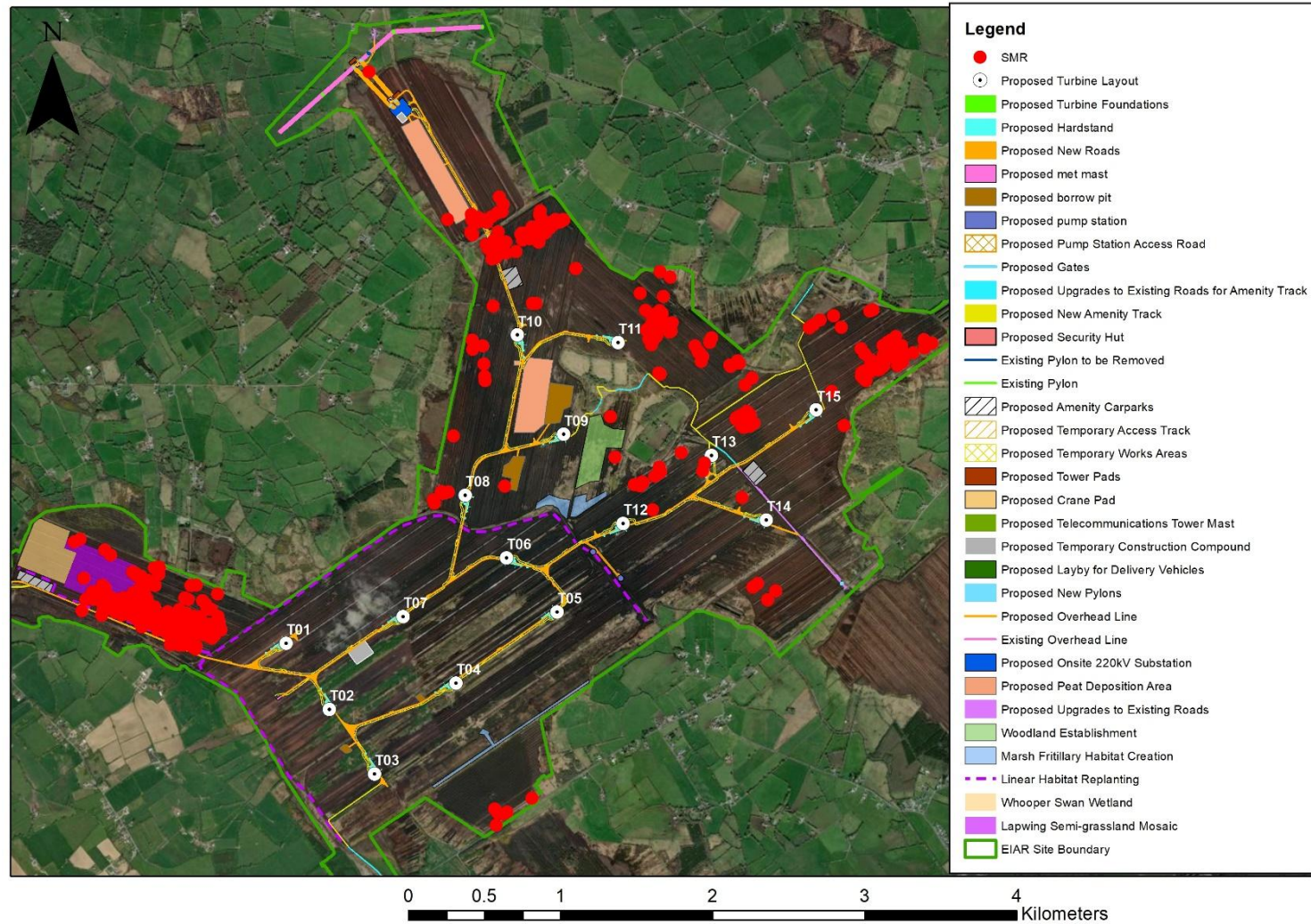


Figure 13-8: Recorded monuments within the Proposed Project site.

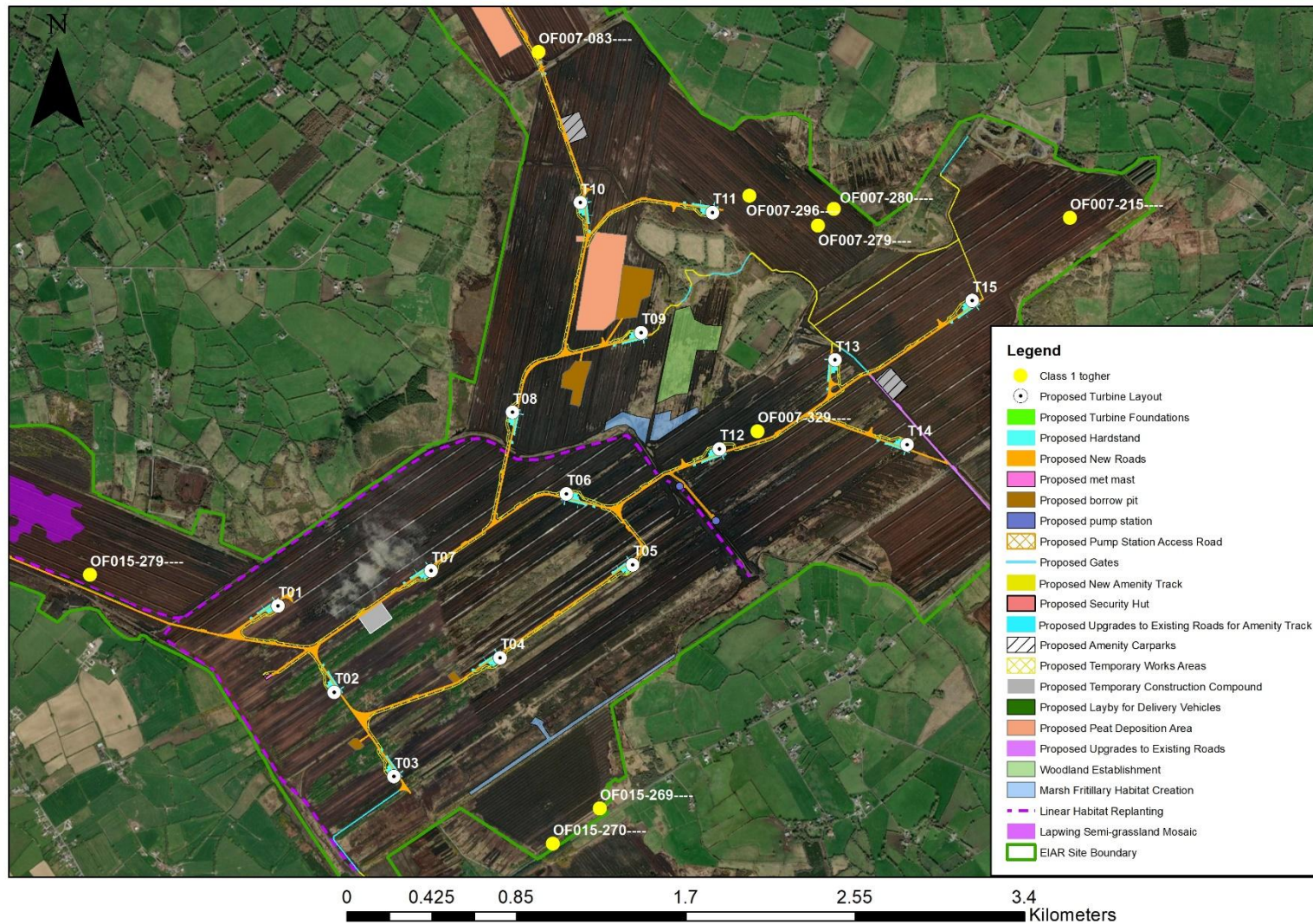


Figure 13-9: Class 1 toghers within the Proposed Project site.

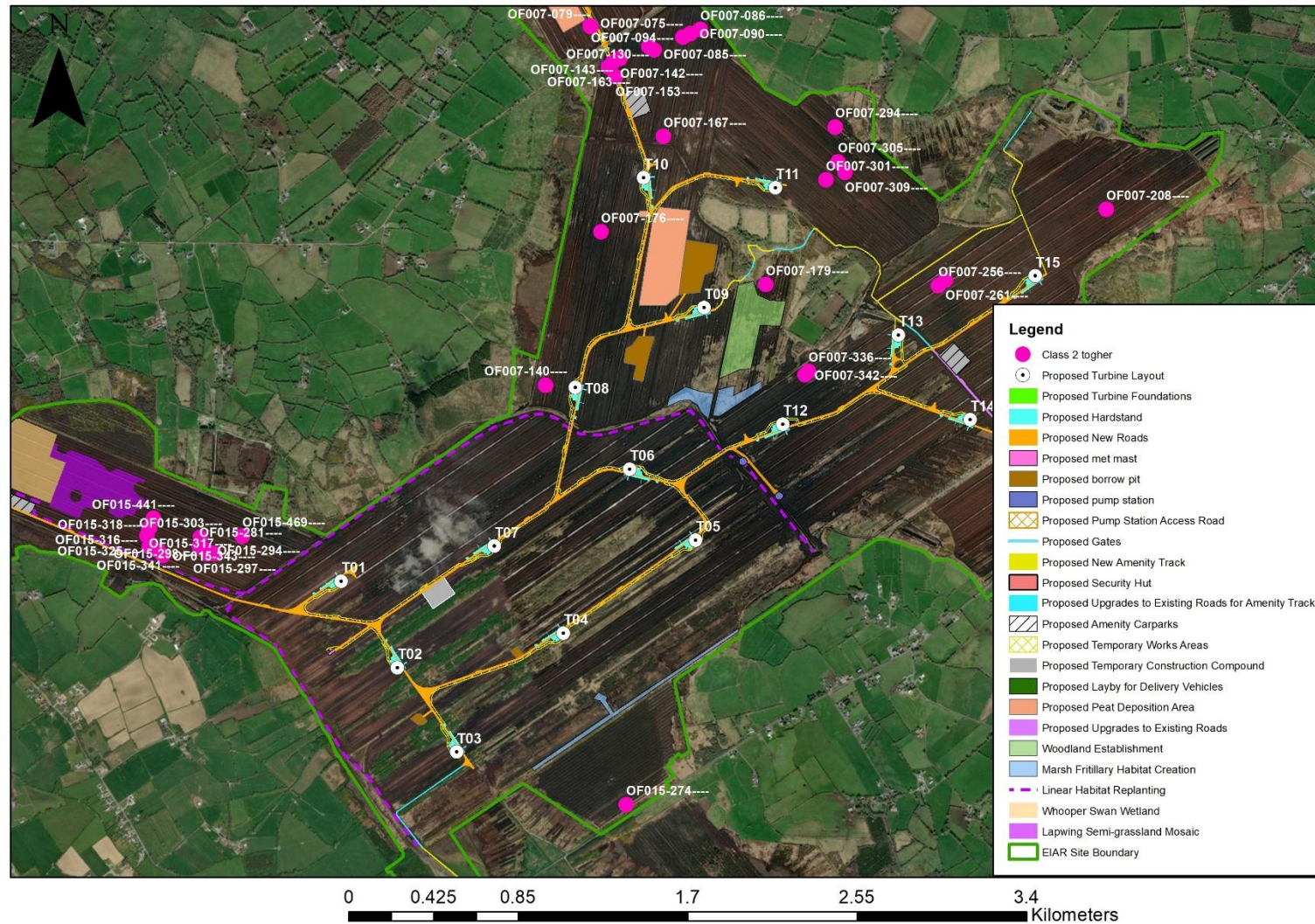


Figure 13-10: Overview of Class 2 toghers within the Proposed Project site.

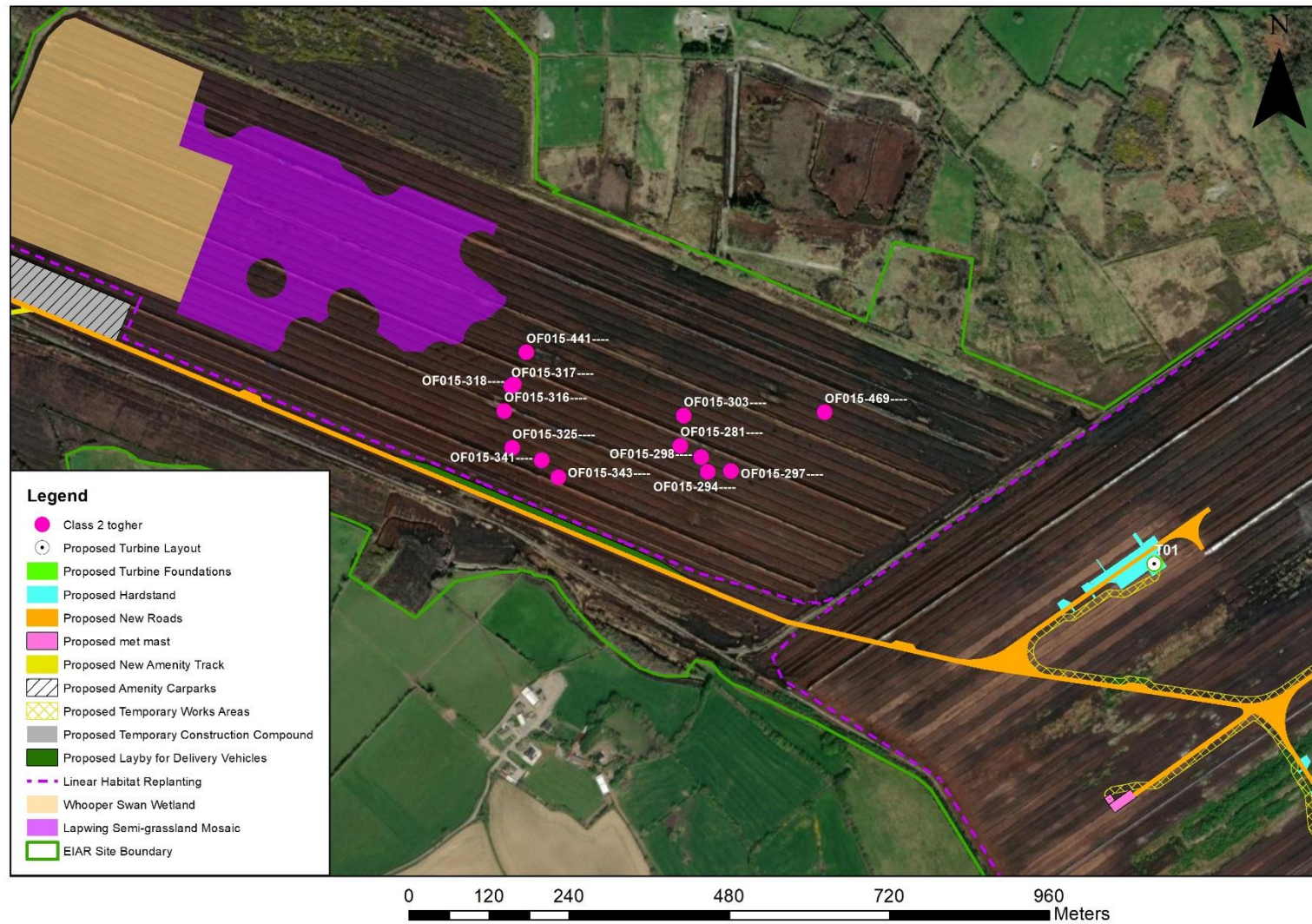


Figure 13-11: Detail of Class 2 toghers at the west side of the Proposed Project site.

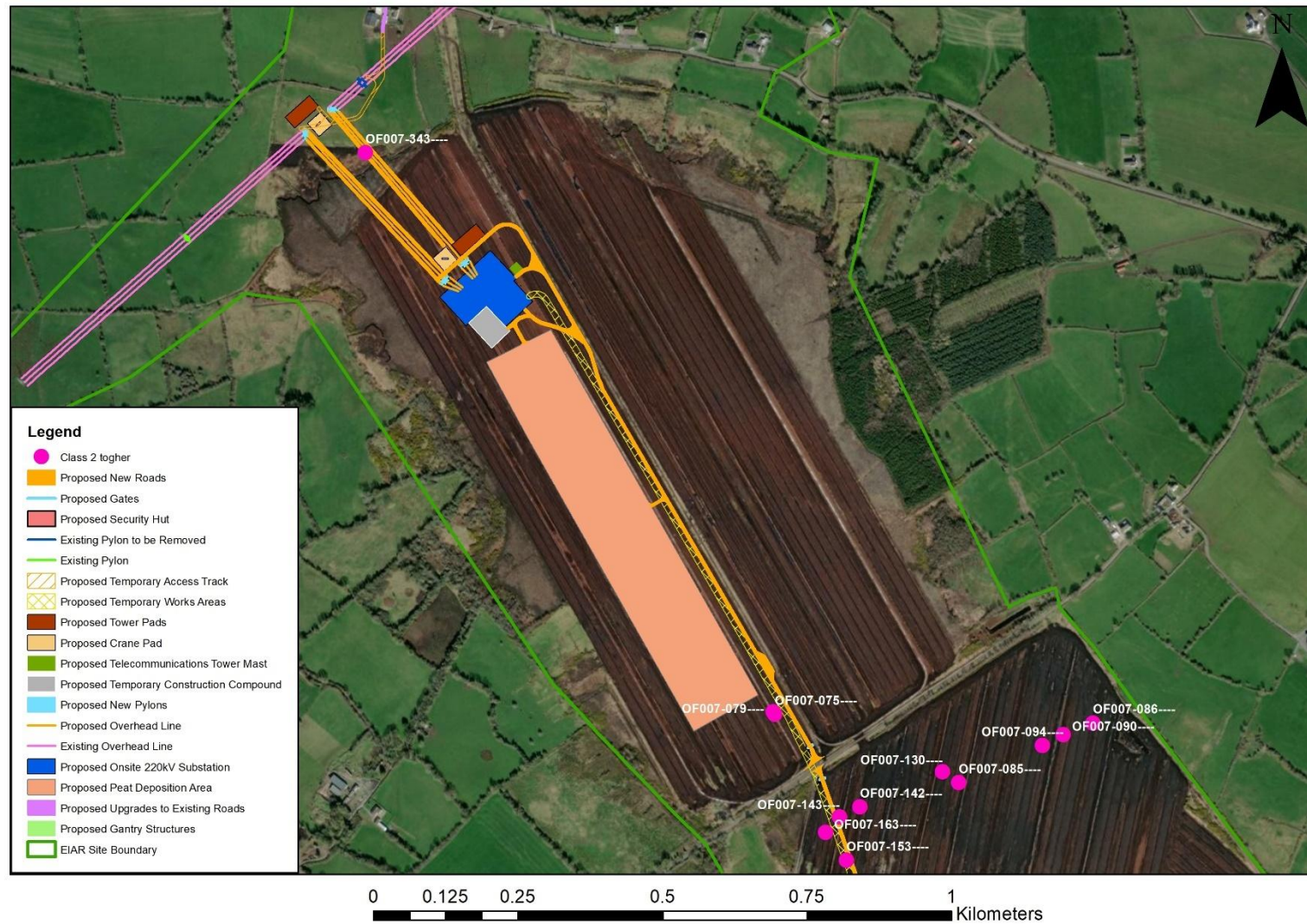


Figure 13-12: Class 2 toghers towards the north end of the Proposed Project site.

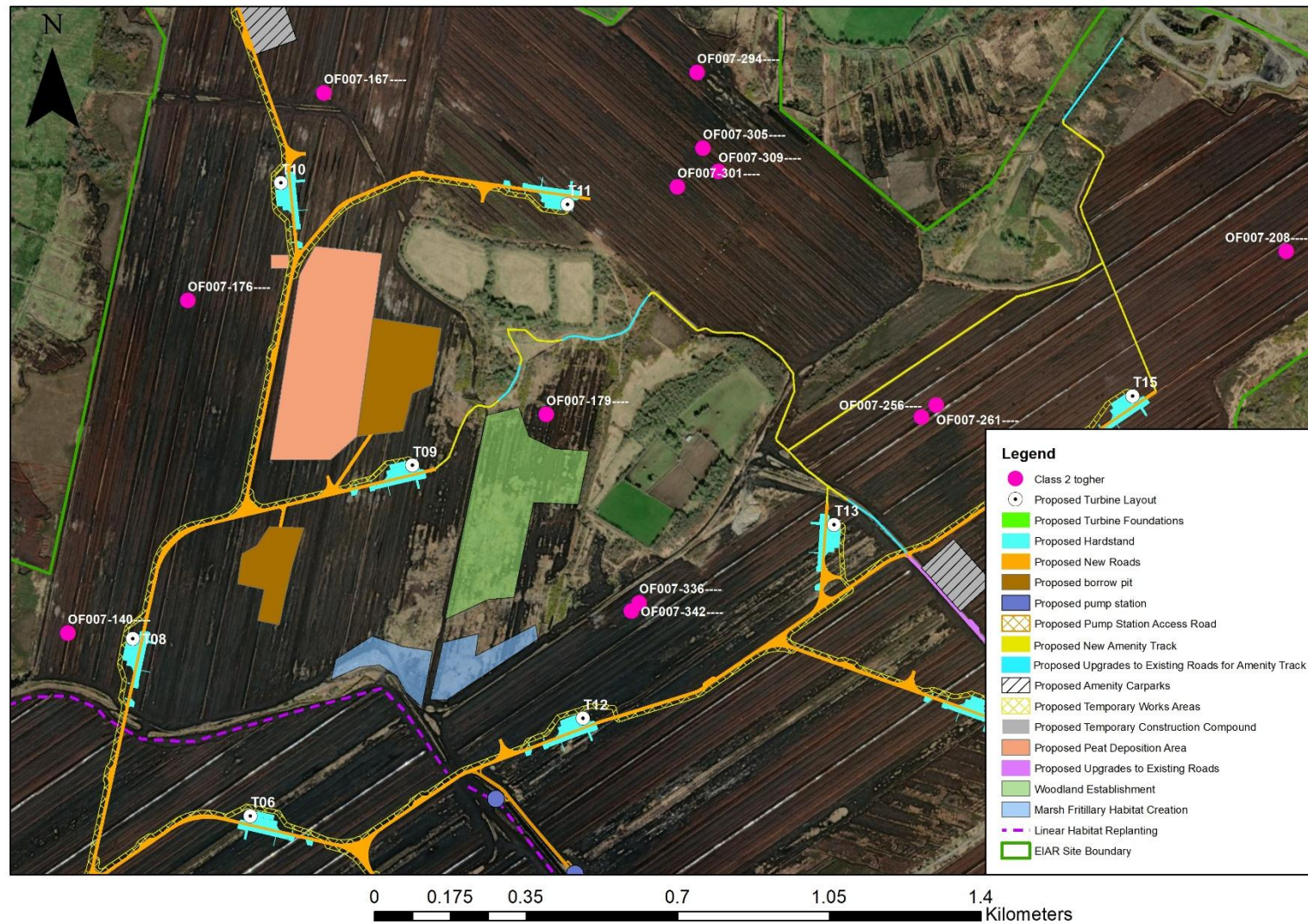


Figure 13-13: Class 2 toghers in the eastern and central portions of the Proposed Project site.

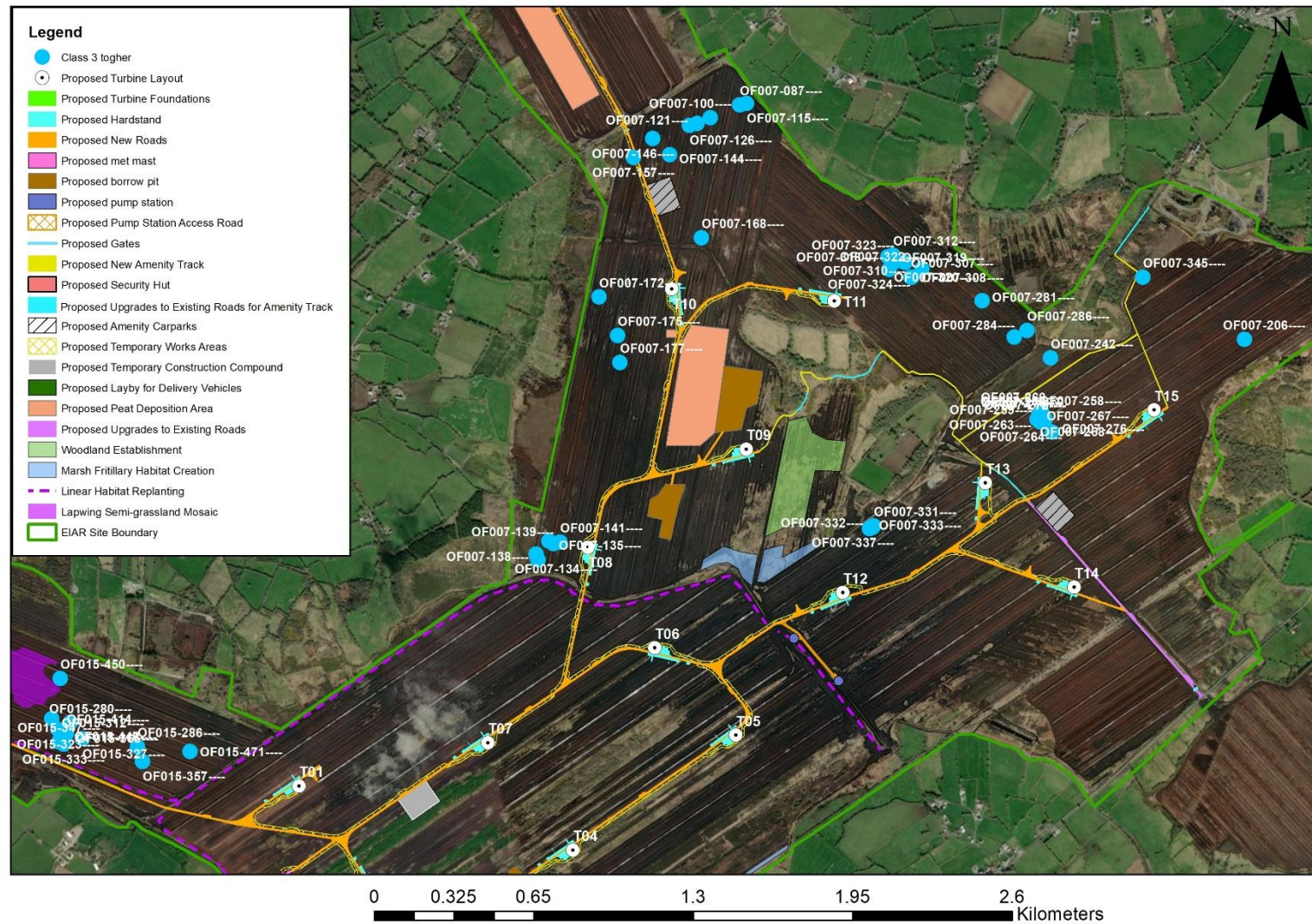


Figure 13-14: Overview of Class 3 toghers within the Proposed Project site.

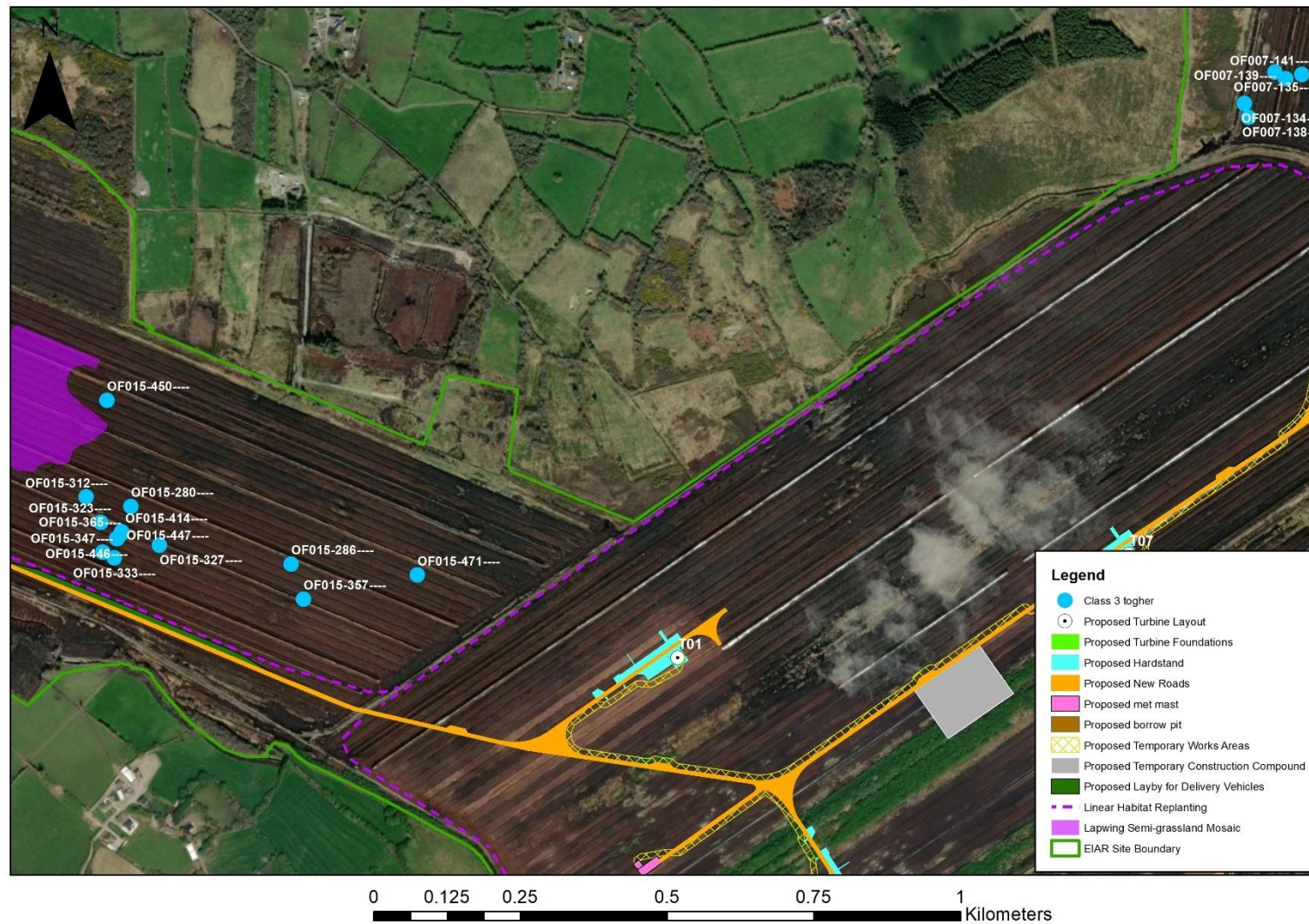


Figure 13-15: Class 3 toghers in the western portion of the Proposed Project site.

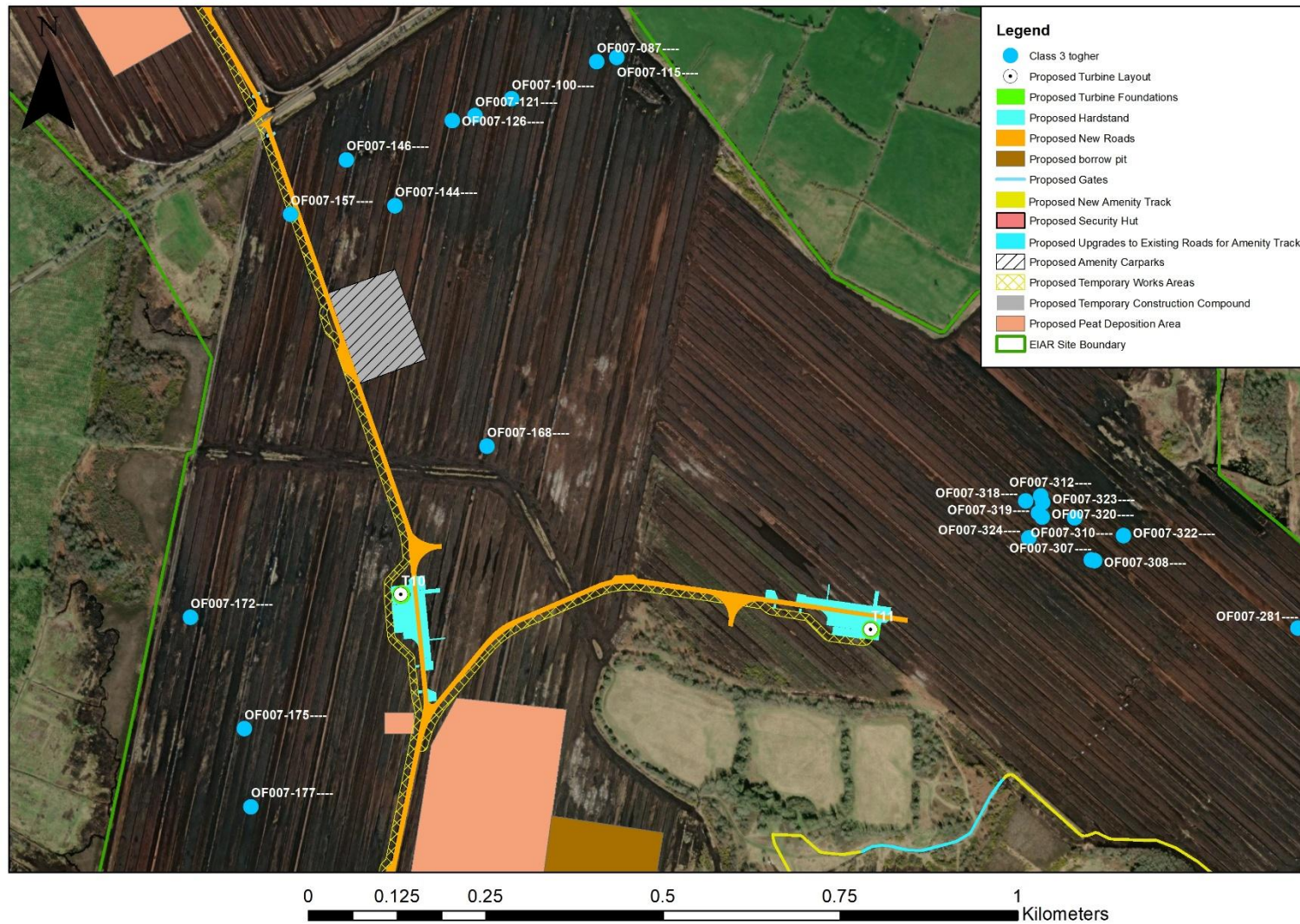


Figure 13-16: Class 3 togthers in the northern and eastern portion of the Proposed Project site.

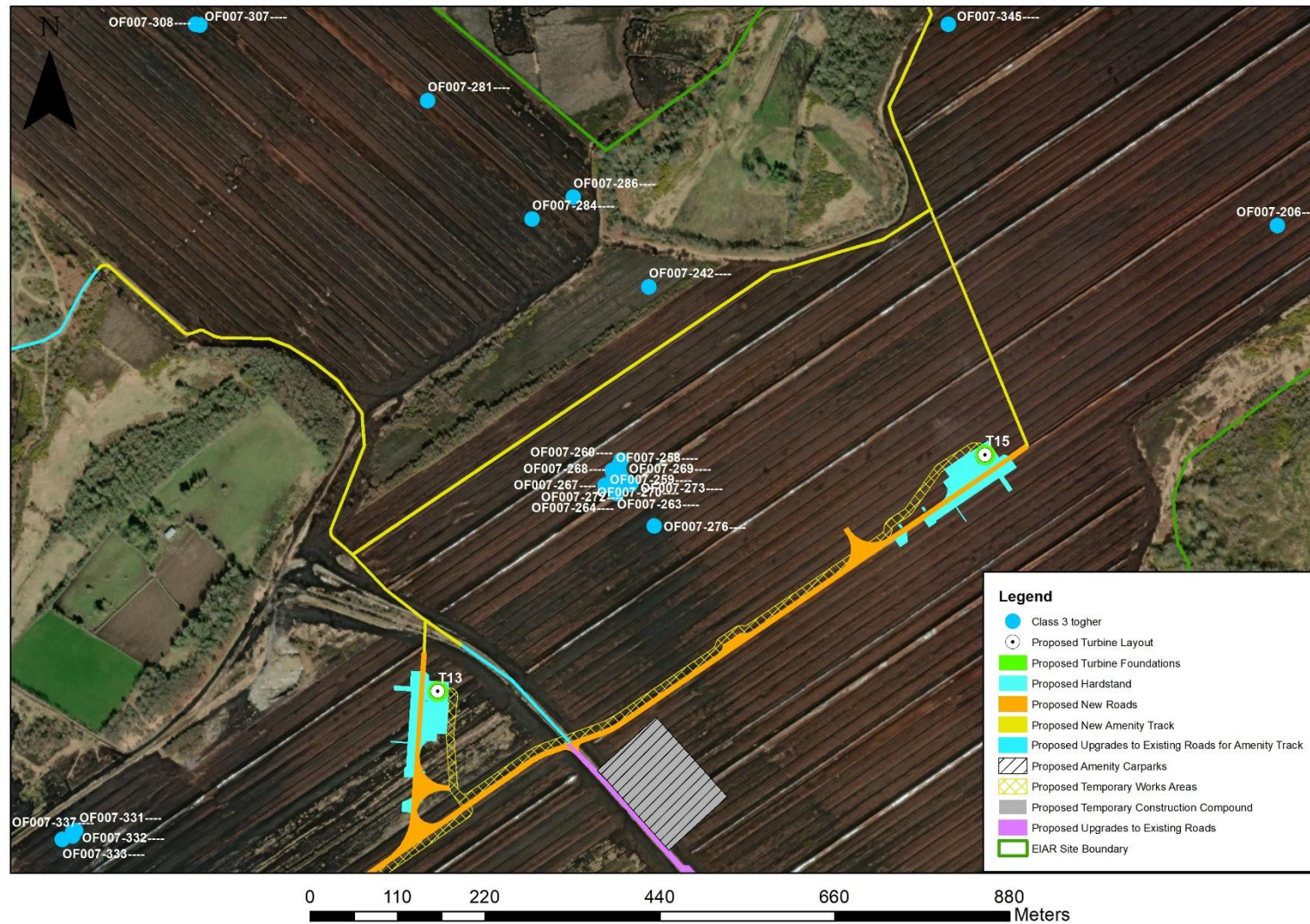


Figure 13-17: Class 3 toghers in the east and central portions of the Proposed Project site.

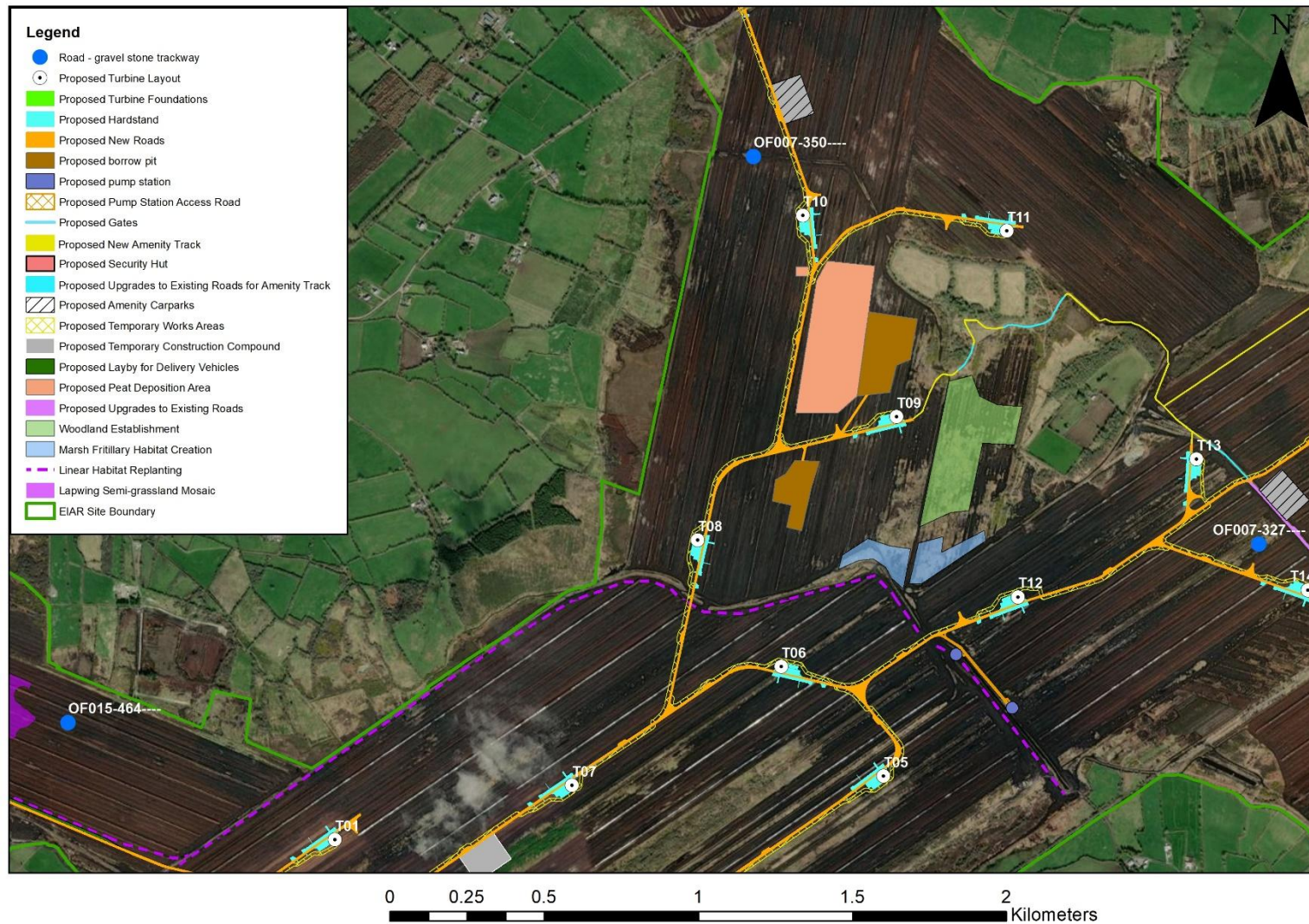


Figure 13-18: Gravel/stone trackways within the Proposed Project site.

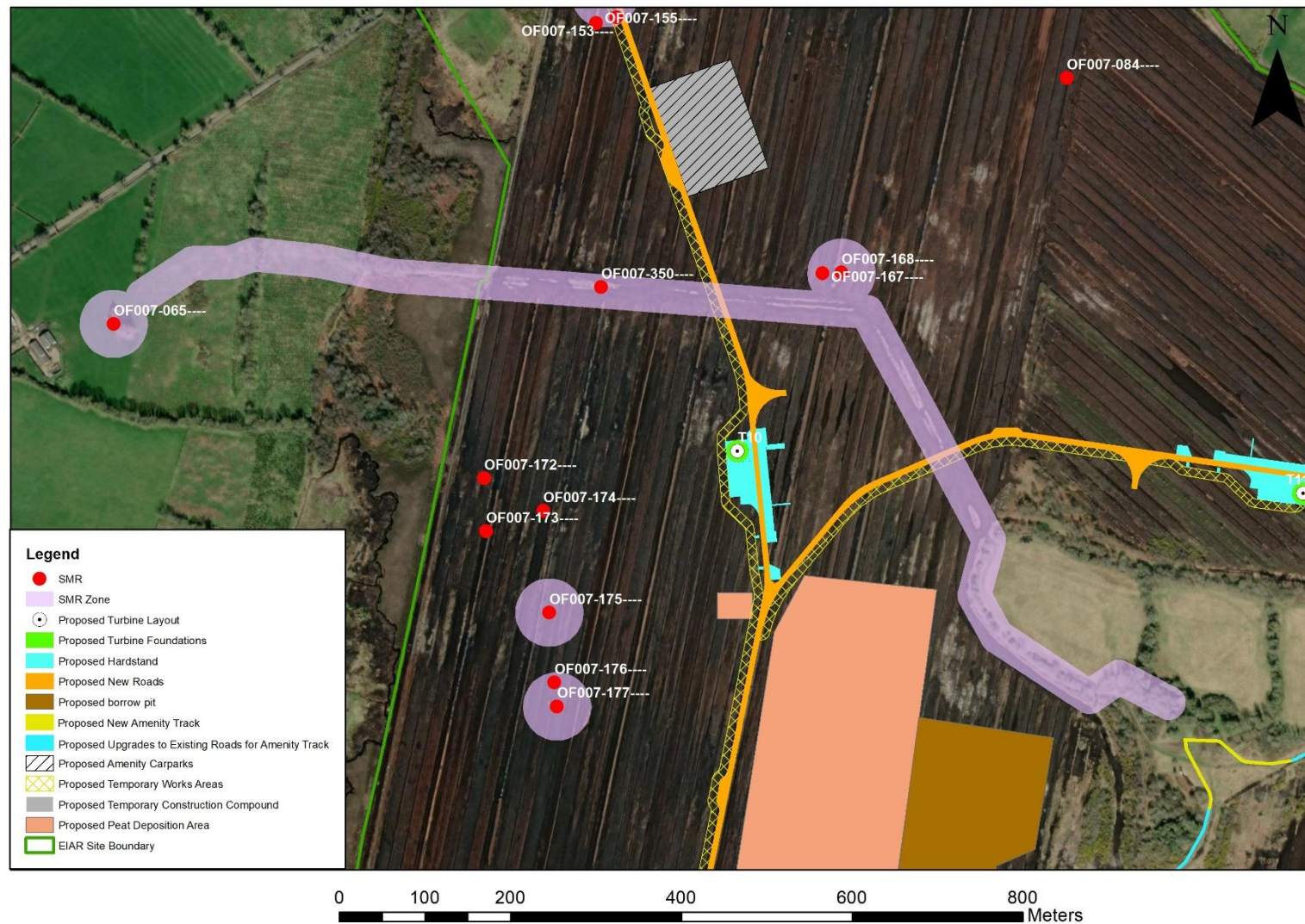


Figure 13-19: Road OF007-350 and associated Zone of Notification.



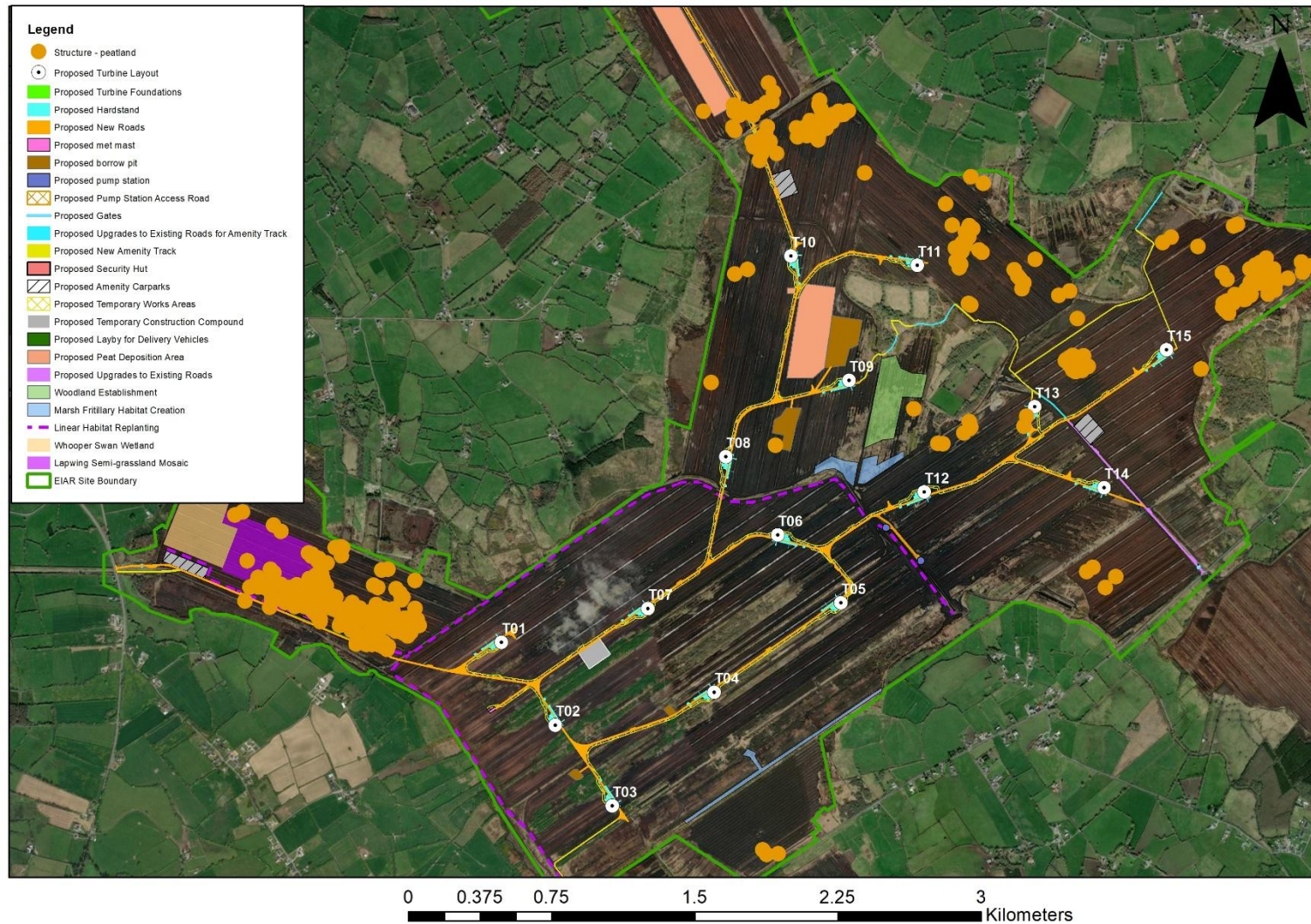


Figure 13-21: Structures – Peatland within the Proposed Project site.

13.2.2.1.4 Archaeological Investigations

The Proposed Project site is predominately comprised of Lemanaghan Bog which is located in the townlands of Tumbeagh, Killaghintoher, Castlearmstrong, Leabeg, Kilnagoolny, Lemanaghan, Rosfaraghan, Derrica More, Corbane, Lisdermot, Cor More and Cor Beg, Straduff, Cooldorragh, Kilnagarnagh, Cappanalosset and Cooldorragh. A number of archaeological surveys and excavations were previously carried out within those townlands during the lifetime of peat extraction and ancillary activities within same by BnM. A summary of the available results of such surveys and/or any reassessment surveys within the above listed townlands, and therefore within the Proposed Project site, is discussed below.

Previous Archaeological Surveys

Peatland Survey 1993-4

Lemanaghan Bog was surveyed by the Irish Archaeological Wetland Unit (IAWU) in 1993-4 as part of the Archaeological Survey of Ireland Peatland Survey (unlicensed). During that survey 470 sightings of archaeological material were made that were subsequently included in the Sites and Monuments Record and make up the vast majority of the recorded monuments located within the Proposed Project site today (see Section 13.2.2.1.3 above).

Assessment and Mitigation Survey 1998

An assessment and mitigation survey of Lemanaghan Bog was undertaken in 1998 (McDermott et al. 1999. *Final report on the assessment and mitigation project 1998 undertaken in Lemanaghan, Co. Offaly*. Unpublished report by the Irish Archaeological Wetland Unit for BnM) and did not identify any sightings of archaeological material within the Proposed Project site.

Re-Assessment Peatland Survey 2013

ADS Ltd. carried out a re-assessment fieldwalking survey of selected BnM industrial peatlands in the Blackwater, Boora, Derrygreenagh and Mountdillon Groups of bogs in Counties Longford, Offaly, Westmeath, Roscommon during 2013 (Whitaker 2014). Castletown Bog, which is 'part of an area collectively known as Lemanaghan Bogs' (ibid., 16) was surveyed as part of this work. The report goes on to state the following in relation to the findings of the re-assessment survey:

'The Re-Assessment survey on Castletown Bog was carried out in August 2013 by ADS at which time three sites were recorded. The Plank Trackway/Road Class 1 Togher OF007-215 mentioned above was relocated and recorded as OF-CTN001a-g across 10 production fields (Figs. 7 & 8). The majority of the sightings were exposed on the field surface apart from sighting OF-CTN001a which was recorded in section in the drain face of a higher, former stockpile, field. The other two sites were short lengths of Road Class 3 toghers, one of which OF-CTN002a-b was located close to the northern limit of the BnM production bog close to the enclosure site OF007-049 while the other, OF-CTN003a-b was located in the southern extent of the narrowest part of the bog in an area where there were numerous sites recorded previously.'

The Class 1 togher referred to (OF007-215—) is located within the Proposed Project site towards the north-east side of same.

Archaeological Excavation including the Excavations Database

Peatlands Excavation Programme 1999-2000

As part of the Peatlands Excavation Programme carried out by ADS Ltd (Whitaker and O'Carroll, 2009) 28 sightings of archaeological material were excavated in 1999. A table listing the excavations undertaken, monument type and date is provided in Appendix 13-7. A summary of the excavations carried out in Castletown Bog (part of Lemanaghan Bog) is also provided in the Re-Assessment Peatland Survey 2013 (Whitaker 2014, 16) as follows:

'Excavations were carried out in Castletown Bog in 1999 by ADS during the first season of BnM mitigation at which time 8 toghers, a platform, a plank trackway (road class 1 – togher) and wood remains were excavated under eight excavation licences (Whitaker & O'Carroll, 2009). These sites were Early to Late Medieval in date.'

Excavations Database

Multiple entries were returned from the Excavations Database (www.excavations.ie) for excavations carried out at or adjacent to the Proposed Project site. The entries returned are from a townland search of the database and while the majority pertain to excavations or surveys carried out within the Proposed Project site some may be located outside same. The database entries are presented in Appendix 13-4 and it should be noted that the information therein is taken directly from www.excavations.ie. Any reference to the 'site' in the investigation descriptions is in reference to the 'site type' to which the investigation relates.

The majority of the entries pertain to excavations or surveys carried out during the peatland surveys, mitigation and assessment surveys and programme of excavation as described in the previous sections above.

Archaeological Monitoring of Site Investigations

Archaeological monitoring of the excavation of geotechnical site investigation trial pits excavated for the Proposed Project was carried out by Tobar Archaeological Services and IAC Archaeology under licence from the National Monuments Service. The monitoring was undertaken in three phases and supervised by Tobar Archaeological Services in 2021 (Licence No. 21E0132) and 2022 (Licence No. 21E0132 Ext). Twenty-nine (29) trial pits were excavated in 2021 and the monitoring report notes that 'No positively identified archaeological features or structures were uncovered in any of the excavated trial pits.' (Quinn 2022a). An additional 18 trial pits were excavated in 2022 and no potential archaeological finds or features were uncovered during archaeological monitoring of same (Quinn 2022b).

A further 16 trial pits were excavated in 2023, and monitoring of same was undertaken by IAC Archaeology (Licence No. 23E0885). 'Nothing of archaeological potential was identified during this phase of works' (Whitaker and Lydon 2023).

The complete geotechnical ground investigation campaign was carried out in accordance with IS EN 1997-2 and BS5930:2015+A1:2020 Code of Practice for Ground Investigations with precedence given to IS EN 1997-2 where applicable. Please also see Appendix 8-1 Peat Stability Risk Assessment for further detail on the site investigations at the Proposed Project site. Please see Appendix 13-6 for the archaeological monitoring reports associated with the Proposed Project.

13.2.2.1.5 **Previously Unrecorded Monuments within the Proposed Project Site**

No previously unrecorded archaeological monuments, stray finds or potential peatland structures were noted within the Proposed Project site during the walk-over survey. Similarly, no potential archaeological features, deposits or artefacts were uncovered during archaeological monitoring of three phases of Site Investigation trial pits (see Section 13.2.2.1.4 above).

13.2.2.1.6 **Recorded Monuments within 5km of the nearest proposed turbine**

A total of one thousand and sixty-eight (1068) recorded monuments are located within 5km of the nearest proposed turbine. This number includes the 491 monuments located within the Proposed Project site with **577 monuments located outside the Proposed Project site within 5km of the nearest proposed turbine** (Figure 13-22). Recorded monuments within the Proposed Project site are discussed in Section 13.2.2.1.3 above while those located outside the Proposed Project site are discussed here and listed in Appendix 13-2. The monuments are grouped according to monument type or period.

Peatland Monuments

At least 265 monuments within 5km of the nearest proposed turbine located outside the Proposed Project site comprise those located in a peatland environment and include Roads (Class 1, 2 and 3 toghers and a road/trackway), Structures – Peatland and Post row – Peatland. The majority are located in Derrynagun and Curraghalassa Bogs to the south-east of the Proposed Project site and were identified during previous Peatland Surveys carried out for BnM. While they are located in areas in which 11-15 turbines will theoretically be visible these monuments may be regarded as having no or low visibility which reduces or negates potential visual effects.

The Prehistoric Period

Many of the peatland monuments discussed above date to the prehistoric period. In addition to these monuments only one additional monument within 5km of the nearest proposed turbine, outside the Proposed Project site, dates to the prehistoric period and comprises a ring barrow (OF007-017—) located c. 3.4km from the nearest proposed turbine, T15. Ring Barrows are a circular or oval raised area (generally up to 1m above the external ground level or level with it) enclosed by fosse(s) and outer bank(s), with or without an entrance. They are part of the Bronze/Iron Age burial tradition (c. 2400 BC - AD 400).

The Early Medieval Period

The Early Medieval period is represented by enclosures, ringforts and crannógs which account for at least 73 of the 586 monuments within 5km of the nearest proposed turbine, outside the Proposed Project site.

Enclosures consist of an area defined by an enclosing element (e.g. bank, wall, fosse, scarp), or indicated as such cartographically, and occurring in a variety of shapes and sizes, possessing no diagnostic features which would allow classification within another monument category. These may date to any period from prehistory onwards. Enclosures with a diameter greater than 70m should be classed as Large Enclosure. Ringforts are a roughly circular or oval area surrounded by an earthen bank with an external fosse. Some examples have two (bivallate) or three (trivallate) banks and fosses, but these are less common and have been equated with higher status sites belonging to upper grades of society. They functioned as residences and/or farmsteads and broadly date from 500 to 1000 AD. Crannógs consist of an island, partly or wholly artificial, built up by dumping timber, earth and stones onto a lake or river bed, often revetted with timber piles or a palisade. Derived from the Irish word

'crannóg'; the Irish word for tree is 'crann' and 'crannóg' principally means a piece of wood or a structure of wood. They date from the 6th to the 17th century AD.

Monuments with Religious Associations

At least 200 monuments within 5km of the nearest proposed turbine, located outside the Proposed Project site, have religious associations and may date to a number of time periods. The monuments include ecclesiastical enclosures, a large number of cross slabs, cross inscribed stones or pillars, bullaun stones, fonts, churches, graveyards, burial grounds, holy wells, a holy tree/bush and Religious house - Augustinian canons. Many of these sites are associated with each other or located in close proximity as a complex of monuments such as at Lemanaghan and Gallen.

Lemanaghan Monastic Complex

Of note amongst these is the complex of monuments in Lemanaghan townland which comprise the early monastic site dedicated to St Managhan or Manchán. The monastic complex is located between c. 1km-1.2km south-west of the nearest proposed turbine, T14 and is located in an area in which the ZTV demonstrates theoretical visibility of 11-15 proposed turbines (Figure 13-24). A comprehensive review of the historical, archaeological and landscape context of Lemanaghan Monastic Complex has been prepared as part of this assessment and is presented in Appendix 13-5.

A monastery at Lemanaghan, Liath Manchán, was founded in the 7th century by Manchán (of Clonmacnoise) whose feast day is celebrated on the 24th of January. Manchán founded the monastery here at the request of the abbots of Clonmacnoise following the granting of the lands of 'Tuaim-nEirc' to the monastery of Clonmacnoise by Diarmait, King of Ireland. Tuaim-nEirc or (Erc's Mound) is thought to refer to the island of dry land on which the monastery is located and which was then surrounded by bogs. The placename Lemanaghan comes from the Irish Liath Manchán and which translates as the grey place or lands of Manchán.

The selection of the site at Lemanaghan for the establishment of the monastery may have been multifactorial. Its isolation or seclusion on the dry island surrounded by bogs is likely to have been a factor and would have provided a place of quiet for the monks' work and prayers. Another reason may have been the presence of a natural spring well which would have provided a source of clean drinking water. Additionally, the well may also have been a focus of pagan veneration prior to the establishment of the monastery. In such circumstances places of pagan worship were converted to Christianity to enable the local community to accept the new religion without completely abandoning long established places or symbols of worship.

The monastic complex at Lemanaghan primarily comprises a number of archaeological monuments which are located to the south and east of the R436 regional road. The surviving upstanding monastic monuments are spread out over an area measuring c. 500m E/W x c. 90m N/S and include a church (OF015-004003-) (aka St Manchán's Church), surrounding graveyard (OF015-004004-), building (OF015-004009-) (aka the House of Manchán), bullaun stones (OF015-004012- and OF015-004013-), holy well (OF015-004007-) (aka St Manchán's Well), and a road (OF015-004011-) which leads from the church and graveyard to a hermitage (OF015-004006-) (aka St Mella's Cell) and surrounding ecclesiastical enclosure (OF015-004014-) located c. 340m to the east. Additional associated monuments include several early Christian cross-slabs and architectural fragments (OF015-004005- to OF015-044032-) which are located both within the church and graveyard at Lemanaghan and also within the disused primary school a short distance to the north-west on the north side of the public road. Other related monuments include the sub-surface remains of a surrounding ecclesiastical enclosure (OF015-004008-) which was detected as a result of geophysical survey carried out at the site in 2004 (Gibson and George, 2004 unpublished report). The possible remains of the enclosure comprising a curvilinear ditch or fosse were noted in the fields to the north-east and south-west of the church and graveyard.

A deserted medieval settlement (OF015-004—) associated with the monastic complex is also included in the Sites and Monuments Record (SMR) at Lemanaghan. It pertains to a settlement which is likely to

have grown up around the monastic site during the medieval period but of which there is no surviving above-ground remains. The poorly preserved remnants of a tower house (OF015-004001-) located c. 60m to the north-west of the church and graveyard further demonstrates the continuity of settlement at Lemanaghan into the later medieval period. The connection between the tower house and the monastic complex is underscored by its use for the translation of the Annals of Clonmacnoise in 1627 (see below for further detail). Of note also is St Manchán's Shrine, the largest surviving reliquary in Ireland now housed in Boher, and the Lemanaghan Crozier which was discovered in Lemanaghan Bog in the 1970s. More recent discoveries include the presence of early medieval burials within the rectangular enclosure surrounding St Mella's Cell which were uncovered when trees within the enclosure were blown down during Storm Eowyn in 2025.

Relationship with and Connection to Lemanaghan Bog

As noted above, the connection between Lemanaghan Monastic Complex and the surrounding bogs is one which is primarily rooted in the foundation of the monastery in the 7th century AD. The presence of bog surrounding the dryland on which the monastery is located is likely to have been a factor in the selection of the site, providing a place of seclusion and quiet contemplation for the monks. It was not, however, a place that remained inaccessible and routeways to the monastery would have been established soon after its foundation, particularly as the site grew in importance. Those routeways, while now largely lost to the passage of time, would have served to connect the site with the outside world and the wider surrounding landscape. While the routes of any original pathways or toghers which definitively led to the monastic complex have not been identified, the presence of toghers dating to the 6th/7th century AD within Lemanaghan Bog and within the Proposed Project site has been established through excavations carried out therein (see below). A more tantalising example (OF015-084—) is located outside the Proposed Project site, in Derrynagun Bog and may be a more likely example of a togher which originally served as a routeway to the monastery.

Apart from the monuments which directly pertain to the monastic site itself, additional monuments in the surrounding locale demonstrate potential connectivity with Lemanaghan Monastic Complex. One such monument type is toghers or roadways which may have led to the monastic complex from various locations over its long period of use. The term togher is used for such routeways which are located in a peatland context, while the term road or trackway is used for a way which has been deliberately constructed between places. Toghers are relatively commonplace features found within the peatlands of Ireland. There are remnants of many toghers throughout Lemanaghan Bog, including several located within the Proposed Project site (see Section 13.2.2.1.3), with the majority having no visible surface expression. One such togher OF007-350— which has a visible surface expression is located towards the north side of the Proposed Wind Farm. As detailed below, this togher does not have any perceived connection to Lemanaghan Monastic Complex and is likely to be much later in date.

Togher OF015-084—

It has been suggested that a togher (OF015-084—) located in Derrynagun bog c. 360m north-east of St Mella's Cell may have originally provided access to the monastic site. A portion of the togher was excavated in 1996 (O'Carroll 1996 unpublished report) and a date range of approximately 600 years for the use of the road from the 7th to 13th centuries AD was established. While a direct connection to the monastic complex is unproven the excavator has suggested that the earliest phase of the togher may have been associated with the establishment of the monastic foundation in the mid-7th century AD. The togher was noted for a length of c. 750m in Lemanaghan townland outside of the Proposed Project site and is still visible on aerial imagery today. At its south-western extent it was traced as far as where the boundary of Bord na Móna property met 'reclaimed farmland on Lemanaghan dry island' (ibid.). Its possible continuation further to the south-west towards the monastic complex is suggested by the visible remains of the togher in section along the line of a field boundary on the dry island (ibid.), however, it has not been definitively traced beyond the aforementioned boundary.

Other Toghers

Possible connections between toghers located within the Proposed Project site to the north of Lemanaghan Monastic Complex have also been suggested. Two Class 1 toghers (OF007-329— and OF007-279—) were subject to partial excavation as part of an assessment and mitigation programme in

1998 and the Peatlands Excavation Programme 1999-2000, respectively. Togher OF007-329— is located in Lemanaghan townland and was traced for a length of c. 870m N/S from a dry island within the Proposed Project site (Broder's Island) to north of the dry island on which Lemanaghan Monastic Complex is located further to the south. While a direct connection to the monastic complex has not been inferred, the date of the togher which ranges from the late 6th to the early 7th century AD demonstrates the construction of the trackway during the time period just prior to the establishment of the monastery. Its location and date may suggest its use by the occupants of the monastery or by visitors to same, however, this cannot be stated with certainty. The second togher (OF007-279—) was located further to the north within the Proposed Project site in Castlearmstrong townland and was subject to partial excavation in 1999. The togher was identified over a length of c. 450m, with four cuttings placed along same (Whitaker and O'Carroll 2009, 53). A date of late 6th/early 7th century AD was returned for this structure, and a wooden crozier was also recovered driven into the peat adjacent to the trackway. The date of the togher is somewhat earlier than the reputed establishment of St Manchán's monastery but is direct evidence for the construction of plank trackways crossing the bog in the early medieval period. The presence of the crozier adjacent to same may be suggestive of the use of the trackway by an ecclesiastic or perhaps the purposeful deposition of the object during the lifetime of the use of the track.

Lemanaghan Conservation Plan 2007

A Conservation Plan for the Lemanaghan Monastic site was commissioned by the Heritage Council in 2001 and was carried out by Margaret Quinlan and Rachel Moss. The Conservation Plan was subsequently published in 2007. The requirement for the Conservation Plan largely stemmed from the vulnerability of heritage sites identified along authenticated medieval pilgrimage routes, including the pilgrim way to Clonmacnoise, which formed part of the Pilgrim Paths Project, a millennium project set up by the Heritage Council in 1997. Two starting points were proposed for the walking route, Lemanaghan and Boher. The Conservation Plan states that *'One of the main recommendations was that the sites at Lemanaghan were too fragile to withstand the number of visitors that might be expected' should it become the starting point for such as pilgrim route and from this was borne the requirement for a conservation plan. The Conservation Plan summarises the monuments at Lemanaghan as follows:*

'The monastic complex comprises two principal sites. The first is enclosed by a modern graveyard wall and contains St Managhan's Church and house. The second is marked by a rectangular medieval enclosure containing (above ground) a single oratory, St Mella's Cell. The two sites are linked by a medieval togher. In addition to these two elements are a holy well and tree, two bullauns, a collection of early Christian grave slabs and carved stones (now housed in the schoolhouse), and a number of more remote associated archaeological sites and artefacts.' (2007, 23).

One such artefact of note is the Lemanaghan Crozier, an 11th-century crozier of gilt bronze and wood which was discovered in two parts in Lemanaghan Bog. Also of note are a number of cross slabs which are likely to have originated in the monastic complex but are now stored in the adjacent school house a short distance to the north-west. Extracts from the chronology of events at Lemanaghan as identified in the Conservation Plan are as follows:

- › AD 645 Monastery of Lemanaghan founded at 'Tuaim na nErc' by the Abbots of Clonmacnoise in 'honour of God and St Ciaran'.
- › AD 663/665 Death of St Managhan, first Abbot of Lemanaghan.
- › 717 Death of Managhan, Abbot of Leith.
- › 851 Death of Flann, son of Reachtabhra, abbot of Liath.
- › 767- 893 Recorded deaths of four further abbots of Lemanaghan.
- › c. 900-1100 Construction of earliest section of St Managhan's Church and St Mella's Cell and enclosure.
- › c. 1000-1100 Manufacture of the Lemanaghan crozier.
- › c. 1100-1200 Manufacture of St Managhan's shrine.
- › c.1200 Extension westward of St Managhan's Church.
- › 1205 Death of Gillebrenyn O' Bichollye, Abbot of Lemanaghan.

- › 1302-6 The Papal taxation notes that nothing is received from the vicar at Leith as ‘the vicarage is devastated by war’.
- › 1508 Maurice Macohclayn, canon of the church of Clonmacnoise, is granted the vicarage and parish church of Liathmanachayn. He holds this jointly with the vicarage to the canonry and prebend of the church of Clonmacnoise. The union between the two was dissolved on his death.
- › c. 1500-1600 Extension eastwards of St Managhan’s Church. Construction of ‘St Managhan’s house’— probably as a priests’ residence.
- › 1615 Description of the old church of Lemanaghan as situated in the middle of a bog impassable in the time of winter.
- › 1620 Earliest known survey of the barony of Garrycastle is carried out. Description by Matthew de Renzi of Lemanaghan castle.
- › 1627 Annals of Clonmacnoise are translated in the castle by Conell MacGeoghagan and dedicated to Terence McCoghlin.
- › 1630 Martyrology of Donegal refers to a great shrine kept on the altar of the church of Liath-Manachan in Dealbna-Mhec-Cochlain.
- › 1641 Church at Lemanaghan probably destroyed during the rebellion, Lemanaghan castle passes into the hands of the Duke of Buckingham.

A Statement of Significance of the Lemanaghan Monastic site is also set out within the Conservation Plan (ibid., 44-5) and states the following points of note:

The site is of national archaeological significance.

Lemanaghan is exceptional in the survival of a range of both ecclesiastical and secular features, along with sections of associated infrastructure. These enable the compilation of a chronology and a narrative of the occupation of the site and its setting over c. 1,000 years that is without parallel.

The setting of Lemanaghan is significant in the context of early Christian monasticism.

The monastery at Lemanaghan was founded on an isolated upland area surrounded by inhospitable bog, an area which may once have been a centre of pagan worship. This follows the pattern of many early Irish monasteries. It was founded as a cell of nearby Clonmacnoise, one of the most powerful monasteries in early Christian Ireland. Close links between the two monasteries throughout their histories are confirmed by archaeological, art historical and documentary evidence.

The structures associated with the site are all of architectural significance.

St Managhan’s Church incorporates fabric from three of the most important phases of church building in the Middle Ages and as such, it documents the fortunes of the monastery through this period. The late 15th or 16th-century work in the east end is of particularly high quality. St Mella’s Cell is a rare example of a pre-Romanesque oratory which does not appear to have undergone any major alteration or repair since it was constructed. It is the only unaltered example of its type in County Offaly.

St Mella’s Cell and Enclosure are of national archaeological importance.

The enclosure in which St Mella’s Cell is located is exceptional in its rectangular form and method of construction.

The number and quality of artefacts associated with the site are of archaeological and art historical significance.

St Managhan’s shrine, the wooden staff and the metalwork crozier are items of national importance. St Managhan’s shrine is unique both in artistic accomplishment, and in the fact that it is still associated with the locality for which it was made.

The documented history of Lemanaghan is rich for a site of this type and ties in particularly closely with the archaeological evidence.

This applies to both the earlier and later periods of its history, first as a monastic site and later as a parish church. Seventeenth-century documentation of the secular occupation of the parish is also quite

rich and is included in a number of early surveys and census returns. The castle was of significance as being the location where the Annals of Clonmacnoise were translated.

The site is significant in its continued use for devotional practices.

Although the church at Lemanaghan fell out of use in 1641, the holy well, holy tree and the piscina in St Managhan's church all continue to provide a focus for worship, as evidenced by an ever-changing array of offerings.

There is a vibrant folklore associated with the place.

Continuity of worship is mirrored in the vibrant folklore which, linked directly to the monuments in many instances, has contributed to keeping the history of the site very much alive.

An tSlí Mhór – 'The Great Way'

In addition to the important surviving monuments at Lemanaghan is its association with the Slí Mhór pilgrim route which is regarded as one of the five principal roads of early medieval Ireland (<http://www.saint-manchans-shrine.com/>). The Slí Mhór or 'Great Way' comprised a major east-west route in early medieval Ireland and was one of five great roads which are thought to have led to the Hill of Tara. The Slí Mhór itself is considered by some to have followed the Esker Riada, the long gravel ridge deposited by glaciers at the end of the last ice age, through the centre of Ireland and is thought to have functioned as a trade and pilgrimage route. It is also known as the 'Pilgrim's Way' given that it may have functioned as a routeway for pilgrimage to important ecclesiastical centres including Clonmacnoise. It is suggested to start in Dublin, continuing westwards through Kildare and Offaly before ending at the mouth of the Clarin River on Galway Bay (An tSlí Mhór (The Great Way) and the Esker Riada <https://turtlebunbury.com/document/esker-riada/>, accessed 8th January 2026).

The precise route of the Slí Mhór is uncertain and much research has been conducted in an attempt to ascertain same. Research by Hermann Geissel entitled 'A Road on the Long Ridge In Search of the Ancient Highway on the Esker Riada' makes reference to Colm O'Lochlainn's 1940 essay, Roadways in Ancient Ireland, which mapped the five great roads including the Slí Mhór. This map shows a clear convergence of four of these highways on Dublin (https://www.tarataratara.net/resources/Tara_roads/East_West/Tara_Slige_Mhor.htm accessed 22nd October 2025). In the twelfth-century Book of Leinster it is stated that the Slí Mhór passed through Clonard, while other sources favour a route passing through north Kildare and Offaly, crossing the Shannon at Clonmacnoise. For the Slí Mhór O'Lochlainn suggested the following main locations along its route to Clarinbridge in Galway; Dublin, Celbridge, Timahoe, Clonmacnoise and Ballinasloe (ibid.). While O'Lochlainn considered that the Slí Mhór largely coincided with the Esker Riada, Geissel notes that the latter 'as a geological feature was physically discontinuous' with no known 'documentary account of its exact course' (ibid.). According to Geissel (ibid.) the Slí Mhór 'is recognised as being primarily a road for students and pilgrims travelling between....monastic centres and the seaports of Dublin/Howth and Clarinbridge/Kilcolgan' in the time frame of the early medieval period with Clonmacnoise and Durrow at their peak.

Other sources suggest that the Slí Mhór passed through Lemanaghan and that the monastic site here served as an important place of 'cultural and spiritual significance' along its route (<http://www.saint-manchans-shrine.com/sl-mh-r-pilgrims-path.html>, accessed 8th January 2026). The route as suggested above with the important monastic centres of Durrow and Clonmacnoise along same would place the Slí Mhór to the north of the Proposed Project site and north of Lemanaghan Bog. It is possible, however, that smaller local roads were constructed off the Slí Mhór to provide pilgrim and trade access to sites such as Lemanaghan. In any case, the precise route of the Slí Mhór or any associated local roads is not known and cannot be mapped with any certainty. As has been noted above, evolving and ever-changing landscapes frequently obscure or remove the traces of such ancient features. In this regard, while an association between Lemanaghan and the Slí Mhór may exist, the physical manifestation of that connection has been lost. The modern iteration of the Pilgrim's Way to Clonmacnoise comprises a Pilgrim's Road from Ballycumber to Clonmacnoise which utilises the public road network.

As noted above, there is no known physical manifestation of the Slí Mhór or designated walking route along same which currently leads to Lemanaghan Monastic Complex, or which extends through Lemanaghan Bog to the Monastic Site. A possible route for the establishment of the 'Pilgrim's Path' to Lemanaghan Monastic Complex was proposed in 1999 and incorporated the togher OF015-084—through Derrynagun Bog as discussed above. A number of significant difficulties associated with this potential route were identified in the Conservation Plan for Lemanaghan (2007, 48) including the vulnerability of the togher and its susceptibility to damage. This coupled with other identified issues led to an alternative route being proposed which did not incorporate the trackway or St Mella's Cell. Subsequently, the Pilgrim's Path to Lemanaghan has not been formally established and no walking route to the monastic site either through Lemanaghan Bog or through Derrynagun Bog currently exists.

The focal monuments located at the Lemanaghan monastic complex are described on the HEV and are presented in Appendix 13-5. For brevity the descriptions of the numerous cross slabs are not included.

The monastic complex at Lemanaghan was visited as part of this assessment (see Plate 13-4, Plate 13-5, Plate 13-6, Plate 13-7, Plate 13-8 and Plate 13-9). As part of the LVIA (Chapter 14) two photomontages (VP 13 and 14) were also created from the site illustrating visibility of the proposed turbines from both the church and graveyard (OF015-004003- and OF015-004004-) and from St Mella's Cell (OF015-004006-). Photowires and other visualisations were also produced from the Monastic Complex and are presented in Technical Appendix 13-5. Discussion of same and an assessment of potential visual effects is presented in Section 13.3.4.3 below.



Plate 13-4: Church (OF015-004003-) at Lemanaghan, looking E.



Plate 13-5: East gable of church OF015-004003, looking W.



Plate 13-6: Church OF015-004003- and graveyard OF015-004004, looking NW.



Plate 13-7: Bullaun stone OF015-004012- at roadside.



Plate 13-8: Road OF015-004011- between St Mella's Cell and the church and graveyard at Lemanaghan, looking ESE.



Plate 13-9: St Manchán's Well (OF015-004007-) and adjacent bullau stone (OF015-004012-), looking NE.

Gallen Abbey and Cross Slabs

Also located within 5km of the nearest proposed turbine outside the Proposed Project site is the complex of monuments at Gallen, c. 4km to the south-west of the nearest proposed turbine, T3. Two hundred decorated slabs were recovered from the site during its excavation in the 1930s. At least 152 of the cross slabs and inscribed stones are included in the SMR and account for the large number of monuments at this site. Also located here is Gallen Abbey (OF014-029001-) which is built near the site of an early Christian monastery. It is a National Monument (No. 504) and is described in Section 13.2.2.1.2 above. The ZTV demonstrates theoretical visibility of 11-15 proposed turbines from this area.

The Medieval Period

At least 21 monuments within 5km of the nearest proposed turbine, outside the Proposed Project site, date to the medieval period. They include unclassified castles, tower houses, mottes, bawns, a Sheelana-gig, a moated site and a deserted medieval settlement.

Unclassified castles comprise a castle that cannot be more precisely classified. They can date from the late 12th to the 16th century AD. Tower houses were a later development, primarily dating to the 15th and 16th centuries. They comprise a fortified residence in the form of a tower, usually four or five

storeys high, and for the most part slightly more rectangular than square in plan. They were constructed by a lord or landholder and were often partially or completely enclosed by a bawn. The majority date to the 15th and 16th centuries AD.

Mottes, mottes and baileys and moated sites were all constructed by the Anglo-Normans in the late 12th-early 13th century. A motte and bailey comprises an early form of castle consisting of a flat-topped, steep-sided, earthen mound supporting a wooden tower, with an associated courtyard or bailey, which is often raised and enclosed by a bank and fosse. Sometimes mottes occur without any surviving evidence for the bailey. Moated sites consist of a square, rectangular or occasionally circular area, sometimes raised above the ground, enclosed by a wide, often water-filled, fosse, with or without an outer bank and with a wide causewayed entrance. They date to the late 13th/early 14th centuries and were primarily fortified residences/farmsteads of Anglo-Norman settlers though they were also built by Gaelic lords.

Deserted medieval settlements comprise an abandoned medieval settlement dating from the 13th century to 1550 AD. They generally consist of a group of houses in close proximity with associated land plots, associated with a parish church and/or castle or tower house, often evident as earthworks.

The nearest of these monuments comprise a tower house, Sheela-na-gig and deserted medieval settlement at Lemanaghan. The tower house (OF015-00400-) and Sheela-na-gig (OF015-004002-) are situated c. 1.1km from the nearest proposed turbine, T5 and T14, respectively. Only the partial remains of the tower house now survive, however, the remainder having been demolished in the late 1950s. The location of the Sheela-na-gig is unknown. The deserted medieval settlement at Lemanaghan (OF015-004—), located c. 1.1km from T14, also does not have any above-ground remains.



Plate 13-10: Ruinous remains of tower house OF015-00400- at Lemanaghan, looking NW.

The Post Medieval Period

At least six recorded monuments dating to the post-medieval period are located within 5km of the nearest proposed turbine, outside the Proposed Project site. They comprise two fortified houses (OF007-037— and OF015-011—), a 17th century house (OF007-065—), two designed landscape features (tree rings OF007-047— and OF007-015—) and a well (OF015-011003-).

The nearest of these monuments comprises the 17th century house (OF007-065—) at Tumbeagh located c. 745m from the nearest proposed turbine, T10 and a fortified house (OF007-037—) at Castlearmstrong, c. 1km from the nearest proposed turbine, T15 (Figure 13-25). The 17th century house at Tumbeagh comprises a ruinous two storey structure located in pasture to the west of the Proposed Project site. A stone/gravel road OF007-350— largely located within the Proposed Project site is shown

on the 25-inch OS historic mapping extending from an island within the site as far as the 17th century house to the west. The ZTV indicates theoretical visibility of 11-15 proposed turbines from this location.

The fortified house (OF007-037—) at Castlearmstrong is located just outside the Proposed Project site to the north-east of same. It comprises a ruinous upstanding structure at the south-west end of a farmyard. Views of the house were not possible from within the Proposed Project site due to the presence of natural intervening screening. The ZTV indicates theoretical visibility of 11-15 proposed turbines from this location.

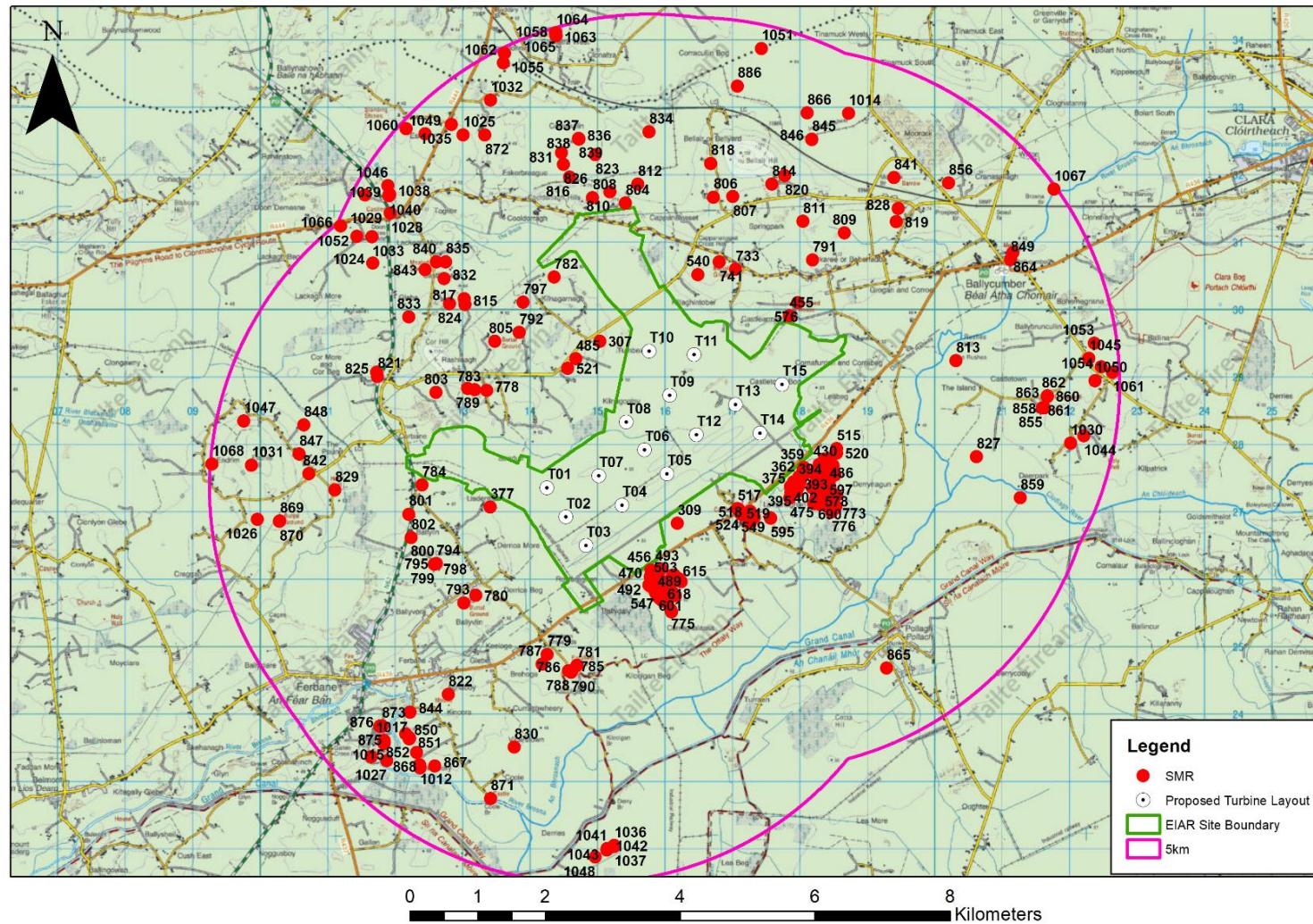


Figure 13-22: Recorded monuments within 5km of the nearest proposed turbine (outside the Proposed Project site).

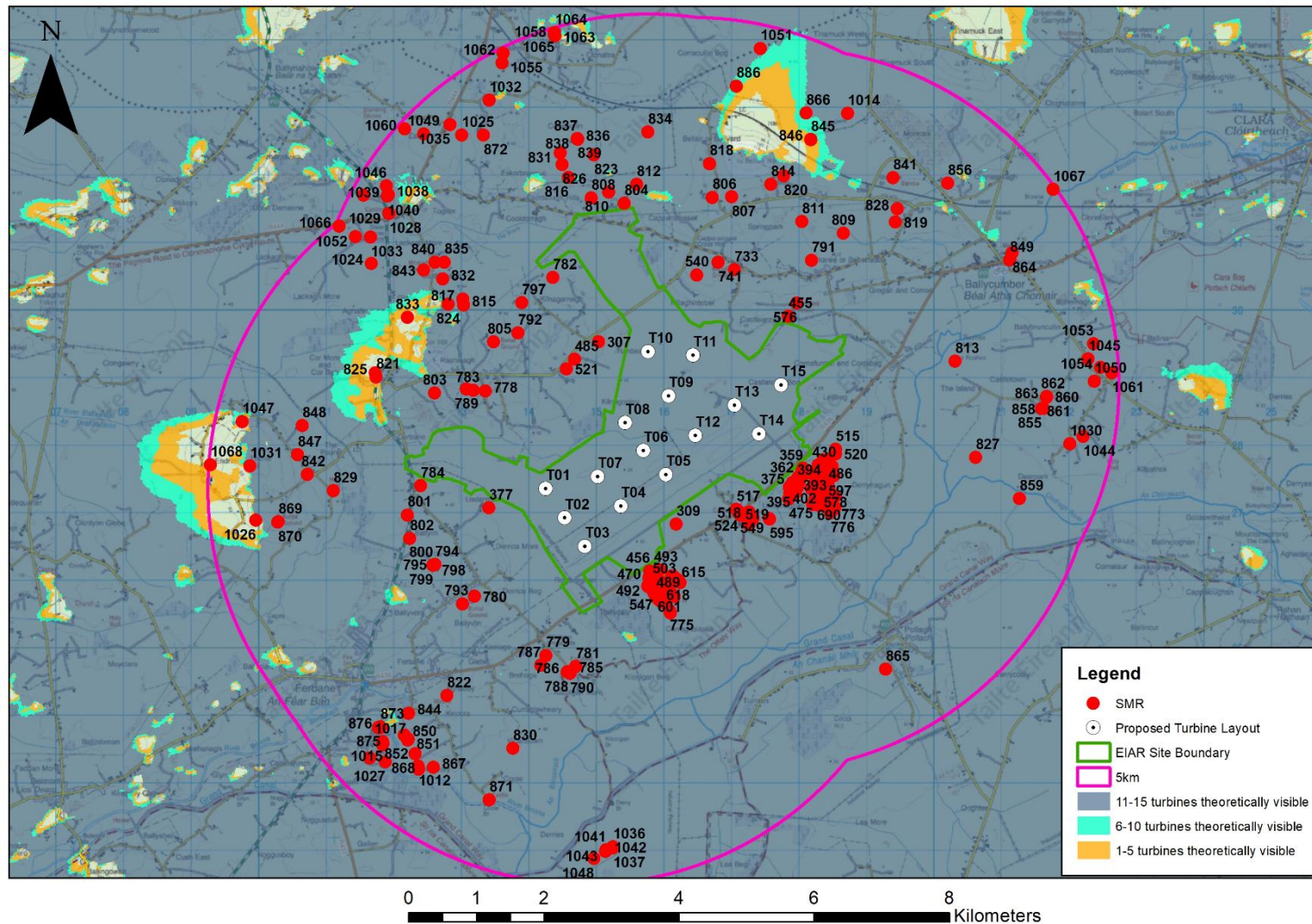


Figure 13-23: Recorded monuments within 5km of the nearest proposed turbine (outside the Proposed Project site) and ZTV.



Figure 13-24: Complex of monuments at Lemanaghan monastic site and adjacent to same with associated Zones of Notification.

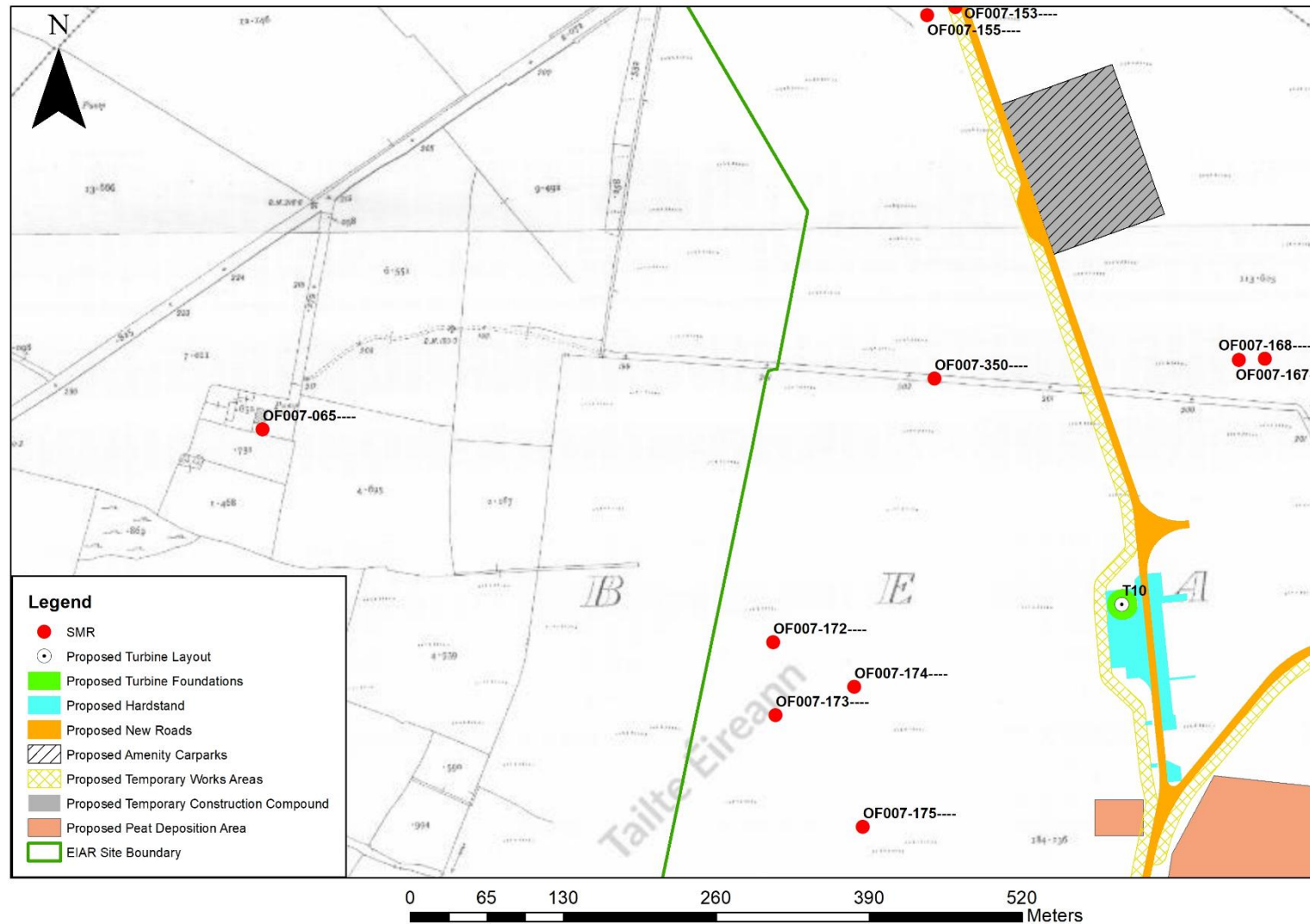


Figure 13-25: 17th century house OF007-065— and associated road OF007-350— as depicted on second edition 25-inch OS map.

13.2.2.1.7 **Topographical Files of the National Museum of Ireland**

The Topographical Files of the National Museum of Ireland were consulted by Tobar Archaeological Services in December 2020. The finds from the townlands within the Proposed Project site are presented below according to townland.

LEMANAGHAN:

1977:2338 Copper Alloy Crozier
1992:6 Wood Crozier
1992E148:99 Stone Whetstone
2012:262 Felt Hat

KILLAGHINTOBER:

1992E148:70 Stone hammerstone

COOLDORRAGH:

1933:591 Bronze Dagger
1933:592 Bronze Axehead
1933:593 Bronze Axehead
1933:594 Bronze Spearhead
1933:595 Bronze Spearhead
1933:596 Bronze Spearhead
1933:760 Bronze Sword
1933:761 Bronze Sword
1933:762 Leather Shoe
1933:763 Wooden Bowl

DERRICA MORE:

1997:45 Stone Axehead

LEABEG:

1991:3 Stone tool
2004:107 Leather shoe
2012:263 Wooden tool
R1690 Wooden blade

TUMBEAGH:

1992E148:51 wool textile
1992E148:70 Stone hammerstone

LISDERMOT:

1992E148:14 Silver coin
1992E148:15 Silver coin
1992E148:16 Silver coin
1992E148:17 Silver coin
1992E148:18 Silver coin
1992E148:19 Silver coin
1992E148:20 Silver coin
1992E148:21 Silver coin
1992E148:22 Silver coin
1992E148:23 Silver coin
1992E148:24 Silver coin
1992E148:25 Silver coin
1992E148:26 Silver coin
1992E148:27 Silver coin

1992E148:28 Flint Scraper
1992E148:33 Silver coin
1992E148:34 Silver coin
1992E148:35 Silver coin
1992E148:36 Silver coin
1992E148:37 Silver coin
1992E148:38 Leather shoe
1992E148:6 Leather shoe

KILNAGOOOLNY:

1997:46 stone ball
2008:12 Leather shoe

KILNAGARNAGH:

1931:312 Copper Dagger
2004:153 Leather Shoe
4432: W225 Bronze Dagger

Additional Stray Finds Information

Information regarding finds from Lemanaghan Bog (including from within the Proposed Project site) are also contained in summary form in the Re-assessment Peatland Survey 2013 (Whitaker, 2014) and in the 2018 assessment of the Boora Bog Group (Whitaker, 2018) as follows:

‘There have been several stray finds from the general Lemanaghan area the earliest of which is a polished stone axe head from Corhill Bog to the west. A metal crozier (The Lemanaghan Crozier) was retrieved from Lemanaghan Bog in the 1980s and a wooden crozier was recovered during ADS excavations in Killaghintoer bog in 1999. Several leather shoes were recovered during earlier surveys from each of the bogs and in 1998 a hoard of silver coins was recovered also from Corhill bog. In Castletown bog itself a fragment of wooden artefact was recovered during the 1992 Peatland Survey, a leather shoe and a dressed hazel rod (broken in five pieces) was recovered during the course of the 1999 excavations of OF007-215 (99E0326). There was a report to the author during the 2013 re-assessment survey of, an as yet unconfirmed, find of a wooden object with ‘Greek’ inscriptions by a BnM worker (Joe Egan pers comm.) during the 2012 production season from the vicinity of the same site.’ (Whitaker 2014).

‘There are 47 stray finds recorded from the Lemanaghan Bog complex. Information on these finds comes from two main sources: the Topographical Files of the National Museum of Ireland (NMI) and the IAWU survey records (prefixed by 92E148). The finds are summarised below by bog area.

There are seven finds from Ballydaly/Curraghlassa Bog. These were all recorded during the 1996 IAWU survey of the bog. Leather fragments (92E148:98) were recorded in Ballydaly townland. A leather shoe (92E148:05) and two leather shoe fragments (92E148:95 & 92E148:32) were recovered from Ballydaly and Lemanaghan townlands respectively. An Ash wooden vessel base (92E148:12) and alder lid (92E148:11); a perforated alder wooden shaft (92E148:09) and alder stave fragments (92E148:13) were recording in Ballydaly townland. A leather shoe (99E0326:09) and a dressed hazel rod (99E0326:08) were recovered during the 1999 excavation of the early medieval Road-Class 1 Togher (OF007-215) in Castletown Bog. A wooden artefact fragment (92E148:67) was recovered during the IAWU survey in 1998.

Nine finds were recovered in Corhill Bog during the IAWU survey. These consisted of a flint side scraper (92E148:28), two leather shoe fragments (92E148:06 & 92E148:07), 14 silver coins (92E148:14-27), six further silver coins (92E148:33-38) from Lisdermot townland. Two ash perforated wooden shafts (92E148:31 & 92E148:10) were recovered from Lisdermot and Lemanaghan townlands respectively, along with an internally decorated ash bowl (92E148:08) and a dressed hazel brushwood rod (92E148:30).

A leather fragment (92E148:97); a small stone with worn surfaces (92E148:99); a wooden vessel roughout (92E148:66) and a perforated alder shaft (92E148:39) were recovered in Leabeg and Lemanaghan townlands in Derrynagun Bog.

Three finds were recovered from Killaghintoher Bog. These consisted of a leather shoe (99E0448:30) that was found on the field surface during the excavation of a nearby trackway. A possible hammer stone (92E148:70) and a carved wooden crozier (99E0445:26) were found during the excavation of an early medieval Road-Class 1Togher.

There is a single stray find of a copper dagger (1931:212) from Kilnagarnagh Bog.

The largest number of finds have 'Lemanaghan Bog' as their find spot. In many cases their exact locations are not recorded. From Ballylin townland there is a hoard of ten amber beads (1982:75a-j); a brass mortar (1937:3389); three bronze axe heads (1937:3386-3388) and an iron sword (1920:64). Lemanaghan townland contains the find spot of a silver, bronze and wood crozier, part of which was recovered in 1992 (1992:006) and the remainder in 1997 (1997:2338). Other finds consist of a stone axe and a leather shoe found by BnM worker in 2000 (no reference numbers); a whetstone fragment (92E148:40) and an alder wooden shaft (92E148:03). A stone axehead (1997:45) was found by a BnM worker in Derica More/Derica Beg townland and a stone ball (1997:46); wooden shaft (92E148:41) and a miscellaneous wooden object (92E148:42) were recovered during the IAWU survey in Kilnagoolny.

A squared ash shaft (92E148:50) was recovered during the IAWU survey of Tumbeagh Bog in Kilnagoolny townland.' (Whitaker 2018, 40-41).

The croziers found in Lemanaghan Bog attest to the use of the bog in the early medieval period and may also imply a possible connection between the bog and Lemanaghan Monastic Complex located c. 700m to the south-east. The reasons for the deposition of such objects within the bog remain elusive. It is possible that the arguably more important metal crozier may have been placed there for safe keeping or to hide it from potential raiders of the monastic site. The 7th century wooden crozier was recovered during the excavation of a plank trackway in Killaghintoher and has been interpreted as an object lost by its owner whilst walking on the trackway (Whitaker and O'Carroll 2009, 123), thus representing a moment in time during the day-to-day traversing of the bog rather than an implied connection between the Monastic Complex and the adjacent bogland.

13.2.2.1.8 **Sub-Surface Archaeological Potential**

The rich archaeological heritage of the Proposed Project site is evidenced by the numerous recorded monuments therein and the large number of archaeological objects recovered from the bogs within and surrounding the Proposed Project site over its lifetime as an industrial peat extraction site. A cultural heritage assessment of the Boora Bog Group carried out in 2018 on behalf of BnM (Whitaker, 2018) includes Lemanaghan Bog. In relation to the overall archaeological potential of those bogs the assessment states the following: *'The numerous archaeological sites and stray finds from the Lemanaghan Bogs, which date from the Neolithic to the late medieval period, show continuous archaeological activity in the area. Wetlands and Peatlands are considered as Areas of Archaeological Potential for their potential to contain archaeological organic preserved remains. Wetlands also provide a significant resource for environmental analysis. It must be considered therefore that there remains a moderate to high potential for additional buried features to be uncovered during the course of any future development works in the Lemanaghan Bogs, particularly but not exclusively, within the previously identified archaeological zones.'*

The presence of a large number of recorded monuments previously identified within the Proposed Project site and the stray finds from the area, including important items such as the Lemanaghan Crozier, suggest that there is still a high potential for the presence of additional archaeological finds, features and structures within the peat.

13.2.2.1.9 **Archaeological Landscapes**

Policy BHP-36 of Offaly CDP 2021-2017 states that it is Council policy to facilitate the identification of important archaeological landscapes in the county. The Offaly CDP does not, however, formally identify any such landscapes. In this regard the Proposed Project is not located in or immediately adjacent to areas which have been designated as Archaeological Landscapes.

13.2.2.1.10 **Orthophotographic Review**

A review of the available aerial imagery of the Proposed Project site including Google Earth and MapGenie was undertaken. No potential archaeological features were noted within the Proposed Project site from that review.

13.2.2.1.11 **Protected Structures within 5km of the nearest proposed turbine**

No Protected Structures are located within the Proposed Project site.

A total of 47 Protected Structures are located within 5km of the nearest proposed turbine, at least 17 of which are located in Ferbane village to the south-west of the Proposed Project site. The structures are listed in Table 13-7 and shown on Figure 13-26. Many of the structures are also included in the NIAH. The nearest Protected Structures comprise a thatched house (11-06) at Killaghintoher c. 900m north of the nearest proposed turbine, T11. At a distance of c. 1km from T15 is the fortified house at Castlearmstrong (11-9) which is also a recorded monument (OF007-037—) and discussed in Section 13.2.2.1.6 above. The ZTV demonstrates theoretical visibility of the proposed turbines from the majority of the Protected Structures (Figure 13-27). A number of photowires and photomontages as described below demonstrates the visibility of the proposed turbines from such locations, some of which are at or adjacent to Protected Structures and NIAH structures. For example, a photowire (VP36) created from the east side of Ferbane village shows how existing buildings and intervening vegetation will screen the proposed turbines from view. Photomontage 03 created from Pollagh Bridge demonstrates visibility of the proposed turbines from this location which is adjacent to Saint Mary's Roman Catholic Church (21-5). The church is located c. 3.4km from the nearest proposed turbine, T14. Photomontage 07 created from St Manchán's cemetery in Boher demonstrates visibility of T15 and T14 from this location which is adjacent to St Manchán's Church (11-3). The church is situated c. 1.6km from the nearest proposed turbine, T15. It also illustrates how existing natural screening will screen some turbines from view. St Manchán's Church (11-3) is renowned for its Harry Clarke stained glass windows and for housing St Manchán's shrine which is associated with the Monastic Complex at Lemanaghan (see Section 13.2.2.1.6 above).

The entries in the OCDP for the nearest Protected Structures are as follows:

*11-06 Killaghantubber
Killaghintoher
Ballycumber
Ferbane*

*Description
Detached four-bay single-storey thatched house, built c.1800, with direct-entry plan. Pitched scalloped reed roof over oaten straw having lines of scalloping and knotted ropework to the ridge. Low rendered chimneystacks. Rendered stone walls. Replacement uPVC windows and replacement timber battened door. Two-bay flat-roofed extension added to rear in mid twentieth century. Sited at end of long avenue in farmyard having single-storey outbuildings with pitched corrugated-iron roofs, rendered walls and timber battened and panelled doors. Note: Not on Barry O'Reilly survey.*

Appraisal

This house and the detailing of its roof make it representative of thatched houses in County Offaly. The scale and treatment of the openings is typical of Irish vernacular architecture. The accompanying outbuildings add interest to the setting.

11-09 Castletown Grogan

Castlearmstrong

Ballycumber

Ferbane

Description

A late-16th or early-17th century house dramatically sited overlooking bog land to the South. The façade is difficult to see as it is covered with trees, but it appears to be of three bays and two storeys. The house is gable-ended with end stacks and built of coursed-rubble limestone which was lime rendered. The rear of the house has a small, pointed doorcase and three pistol loops. It leads out into a small, enclosed area with the remains of a high wall. Adjacent to the house, on the South side, is a later walled garden.

Appraisal

A very complete survival of a semi-fortified house dating from circa 1600. The plan, with the enclosure immediately behind is unusual. The house is an important example of the period.

Table 13-7: RPS structures within 5km of the nearest proposed turbine

RPS ID	NIAH REG.	STRUCTURE	ITM E	ITM N	TURBINE	DISTANCE TO TURBINE (m)
11-6	14907004	Thatched House	616391	730251	T11	901
11-9		Castletown Grogan	617849	729894	T15	1001
21-4	14915003	Cast iron post box	617057	727027	T14	1195
11-4	14907002	Cast -iron post box	618073	730485	T15	1625
11-3	14907001	Saint Manchin's Roman Catholic Church	618099	730535	T15	1680
21-2	14915001	Ballylin House	612566	726245	T01	1985
21-1	14914005	Ballylin House	612063	726384	T01	2354
21-3	14915002	Glebe House	613103	724788	T03	2408
11-2	14801004	Lis National School	619192	730828	T15	2442
11-1	14801003	Lis Church of Ireland Church	619181	730868	T15	2467
12-3	14801005	Ballycumber	620021	730593	T15	2881
21-7		Lemanaghan Bridge	618952	725724	T14	2932
11-7	14907005	Bellair House	617722	732015	T11	2985
11-5	14907003	Moorock Bridge	619038	731879	T15	3267

RPS ID	NIAH REG.	STRUCTURE	ITM E	ITM N	TURBINE	DISTANCE TO TURBINE (m)
21-5	14915005	Saint Mary's Roman Catholic Church	619140	725246	T14	3437
21-6		Aghaboy Bridge	612131	724295	T03	3457
12-69		Twickenham House	620644	731060	T15	3660
12-1	14801001	Ballycumber Railway Station	620165	731620	T15	3677
12-2	14801002	Prospect Bridge	620209	731624	T15	3709
12-68		Barracks	620922	730753	T15	3728
12-4	14801008	John Gavin Shop & House	620947	730716	T15	3731
20-12	14806013	Ulster Bank	611477	724712	T02	3740
20-14	14806015	Former Primary School	611390	724834	T02	3740
20-11	14806011	K. Egan	611481	724675	T02	3759
20-13	14806014	Church of Ireland	611359	724841	T02	3762
12-5	14801009	Ballycumber Bridge	621053	730633	T15	3786
31-2	14915004	Derry Bridge	615115	722736	T03	3795
20-19		Hennesys Pub	611492	724592	T02	3801
20-10	14806010	Main Street, Ferbane	611465	724621	T02	3805
20-9	14806009	Grennan	611494	724583	T02	3805
20-8	14806008	Fleming	611472	724577	T02	3826
20-7	14806007	James Hamill	611471	724558	T02	3839
20-6	14806006	J. Hiney	611469	724539	T02	3852
11-8		Moor Rock Lodge	619310	732402	T15	3855
20-5	14806005	Maddens Drapery Shop	611472	724521	T02	3861

RPS ID	NIAH REG.	STRUCTURE	ITM E	ITM N	TURBINE	DISTANCE TO TURBINE (m)
12-6	14801010	Ballycumber House	621072	730760	T15	3862
20-1	14806001	Ferbane Bridge	611481	724438	T03	3899
20-2	14806002	Saint Mary's Parochial Hall	611470	724420	T03	3918
20-15	14806016	Immaculate Conception Roman Catholic Church	611353	724574	T02	3922
12-7	14801012	Ballycumber House	621106	730866	T15	3943
20-3	14806003	Gallen Lodge	611486	724333	T03	3952
20-16	14806017	Parochial House	611286	724575	T02	3975
20-17	14806018	Ferbane Area Office	611416	724152	T03	4111
20-18	14806019	Gallen Priory	611644	723822	T03	4134
12-65	14908008	House	622105	729555	T15	4468
12-66	14908009	Saint Carthage's Roman Catholic Church	622363	729043	T15	4681

13.2.2.1.12 **NIAH Structures and Historic Gardens within 5km of the nearest proposed turbine**

No NIAH structures or historic gardens are located within the Proposed Project site.

A total of 42 NIAH structures are located within 5km of the nearest proposed turbine and are listed in Table 13-8 and shown on Figure 13-28. At least 18 of the structures are located in Ferbane village to the south-west of the Proposed Project site (Figure 13-30). The ZTV demonstrates theoretical visibility of 11-15 proposed turbines from the majority of the structures within 5km. As noted above, a photowire (VP36) created from the east side of Ferbane village shows how existing buildings and intervening vegetation will screen the turbines from view. The nearest NIAH structure comprises the thatched house at Killaghintoher (Reg. 14907004) which is also a Protected Structure (Ref. 11-06) and is situated c. 900m from the nearest proposed turbine, T11. The description on www.buildingsofireland.ie is as per the RPS entry reproduced above. As discussed above, a number of photowires and photomontages demonstrate the visibility of the proposed turbines from such locations, some of which are at or adjacent to NIAH structures. For example, a photowire (VP36) created from the east side of Ferbane village shows how existing buildings and intervening vegetation will screen the proposed turbines from view. Photomontage 03 created from Pollagh Bridge demonstrates visibility of the proposed turbines from this location which is adjacent to Saint Mary's Roman Catholic Church (14915005). The church is located c. 3.4km from the nearest proposed turbine, T14. Photomontage 07 created from St Manchán's cemetery in Boher demonstrates visibility of T15 and T14 from this location which is adjacent to St Manchán's Church (14907001). The church is situated c. 1.6km from the nearest proposed turbine, T15. It also illustrates how existing natural screening will screen some turbines from view. St Manchán's

Church (14907001) is renowned for its Harry Clarke stained glass windows and for housing St Manchán's shrine which is associated with the Monastic Complex at Lemanaghan (see Section 13.2.2.1.6 above).

Twelve historic gardens are located within 5km of the nearest proposed turbine (Table 13-9). The nearest historic garden is that associated with Castlearmstrong which is located just outside the Proposed Project boundary. The demesne for Castlearmstrong house (later named Castletown) is depicted on the first edition 6-inch OS map as a shaded area within which are lands, gardens and wooded areas associated with the house (Figure 13-38). The formal gardens were originally largely located to the west of the house outside the Proposed Project site, with wooded areas and passages/avenues further to the south. A portion of the demesne as shaded on the historic map is located within the Proposed Project site at the north-east side of same. On the first edition OS map it is depicted as a partially wooded area with a tree-lined avenue. On the later second edition 25-inch map it is shown as a largely wooded area named 'Garden Grove' (Figure 13-39). This area now contains a number of modern tracks, and a review of available aerial photography would suggest it has been much altered. No proposed wind farm infrastructure is located within the demesne or in close proximity to the location of the historic garden. The proposed amenity track will utilise an existing track to the west which leads up to Castlearmstrong, and which appears to have been associated with it during its use in the 19th and 20th century, however, impacts as a result of the amenity track are not anticipated.

Table 13-8: NIAH structures within 5km of the nearest proposed turbine.

NIAH REG.	TYPE.	NAME	TOWNLAND	DATE	ITM E	ITM N	TURBINE	DISTANCE TO TURBINE (m)
14907004	farmhouse		KILLAGHINTOBER	1780-1820	616393	730245	T11	896
14915003	post box		LEMANAGHAN	1900-1910	617061	727034	T14	1187
14907002	post box		CASTLETOWN (BC. BY.)	1910-1950	618073	730487	T15	1628
14907001	church/chapel	Saint Manchin's Catholic Church	PARKAREE OR BOHERFADDA	1850-1870	618104	730531	T15	1678
14915001	outbuilding	Ballylin House	BALLYLIN	1810-1840	612555	726245	T01	1994
14914005	gate lodge	Ballylin House	BALLYLIN	1810-1850	612061	726375	T01	2359
14915002	rectory/glebe/vicarage/curate's house	The Rectory	GLEBE (GA. BY.) FERBANE ED	1800-1840	613109	724787	T03	2405
14801004	school	Liss National School	GROGAN AND CORROE	1820-1860	619191	730828	T15	2442
14801003	church/chapel	Liss Church (Lemanaghan)	GROGAN AND CORROE	1810-1830	619181	730868	T15	2467

NIAH REG.	TYPE.	NAME	TOWNLAND	DATE	ITM E	ITM N	TURBINE	DISTANCE TO TURBINE (m)
14801005	house	A. Flynn	GROGAN AND CORROE	1860-1900	620020	730589	T15	2879
14907005	country house	Bellair House	BELLAIR OR BALLYARD	1805-1810	617729	732007	T11	2980
14907003	bridge	Moorock Bridge	MOOROCK	1850-1870	619044	731875	T15	3265
14915005	church/chapel	Saint Mary's Catholic Church	POLLAGH	1900-1920	619142	725248	T14	3436
14801001	railway station	Ballycumber Railway Station	CRANASALLAGH	1860-1865	620165	731620	T15	3677
14801002	bridge	Prospect Bridge	CRANASALLAGH	1855-1865	620210	731620	T15	3707
14806013	bank/financial institution	Ulster Bank	FERBANE	1880-1920	611480	724709	T02	3740
14801008	house	John Gavin or Corner House	BALLYCUMBER	1870-1890	620954	730722	T15	3740
14806015	school	Ferbane Church (Wheery or Killagally)	FERBANE	1830-1850	611392	724831	T02	3741
14806012	house		FERBANE	1840-1880	611481	724685	T02	3753

NIAH REG.	TYPE.	NAME	TOWNLAND	DATE	ITM E	ITM N	TURBINE	DISTANCE TO TURBINE (m)
14806011	house	K. Egan	FERBANE	1915-1920	611482	724671	T02	3761
14806014	church/chapel	Ferbane Church (Wheery or Killagally)	FERBANE	1800-1840	611362	724838	T02	3762
14801009	bridge	Ballycumber Bridge	BALLYBRUNCULLIN, BALLYCUMBER, BOHERNAGRISNA	1840-1860	621054	730633	T15	3787
14915004	bridge	Derry Bridge	DERRIES (GA. BY.)	1800-1805	615121	722737	T03	3795
14806010	house		FERBANE	1830-1850	611469	724616	T02	3805
14806009	house	Grennan	FERBANE	1860-1900	611493	724580	T02	3808
14806008	house	Fleming	FERBANE	1840-1880	611474	724574	T02	3827
14806007	house		FERBANE	1880-1920	611475	724553	T02	3839
14806006	house		FERBANE	1850-1890	611476	724533	T02	3851

NIAH REG.	TYPE.	NAME	TOWNLAND	DATE	ITM E	ITM N	TURBINE	DISTANCE TO TURBINE (m)
14806004	convent/nunnery	Saint Joseph's Convent	FERBANE	1860-1900	611499	724487	T03	3858
14806005	house		FERBANE	1860-1900	611478	724517	T02	3859
14801010	country house	Ballycumber House	BALLYCUMBER	1625-1630	621073	730759	T15	3862
14806001	bridge	Ferbane Bridge	FERBANE, GALLEN	1930-1935	611484	724438	T03	3897
14806016	church/chapel	Catholic Church of the Immaculate Conception	FERBANE	1890-1900	611361	724570	T02	3919
14806002	parochial hall	Saint Mary's Parochial Hall	GALLEN	1930-1970	611455	724410	T03	3936
14801012	folly	Ballycumber House	BALLYCUMBER	1800-1850	621107	730865	T15	3944
14806003	house	Gallen Lodge	GALLEN	1860-1880	611487	724329	T03	3953
14806017	presbytery/parochial/curate's house	Catholic Church of the Immaculate Conception	FERBANE	1860-1900	611292	724573	T02	3972
14806018	railway station	Ferbane Railway Station	GALLEN	1880-1885	611419	724150	T03	4110

NIAH REG.	TYPE.	NAME	TOWNLAND	DATE	ITM E	ITM N	TURBINE	DISTANCE TO TURBINE (m)
14806019	country house	Gallen Priory	GALLEN	1920-1930	611648	723821	T03	4132
14908008	farmhouse		BALLYBRUNCULLIN	1780-1820	622106	729554	T15	4469
14908009	church/chapel	Saint Patrick's Catholic Church	KILPATRICK	1820-1860	622362	729045	T15	4680
14906002	country house	The Doon	DOON DEMESNE	1790-1820	611350	731795	T10	4982

Table 13.9: Historic gardens within 5km of the nearest proposed turbine.

NAME	ITM E	ITM N	TURBINE	DISTANCE (metres)
Castle Armstrong	617847	729827	T15	935
Hollybrook House	618146	730527	T15	1685
Ballylin House	612548	726328	T01	1954
Kilnagarnagh House	613647	729627	T10	2083
Bellair House	618546	731827	T15	3045
Corbeg House	611648	729627	T01	3403
Moorock House	619546	732327	T15	3894
Prospect House	620446	731827	T15	4020
Kilmore House	610948	724728	T02	4169
Gallen House	611548	723729	T03	4268
Birdville House	621146	731927	T15	4594
Doon House	611248	731627	T10	4994

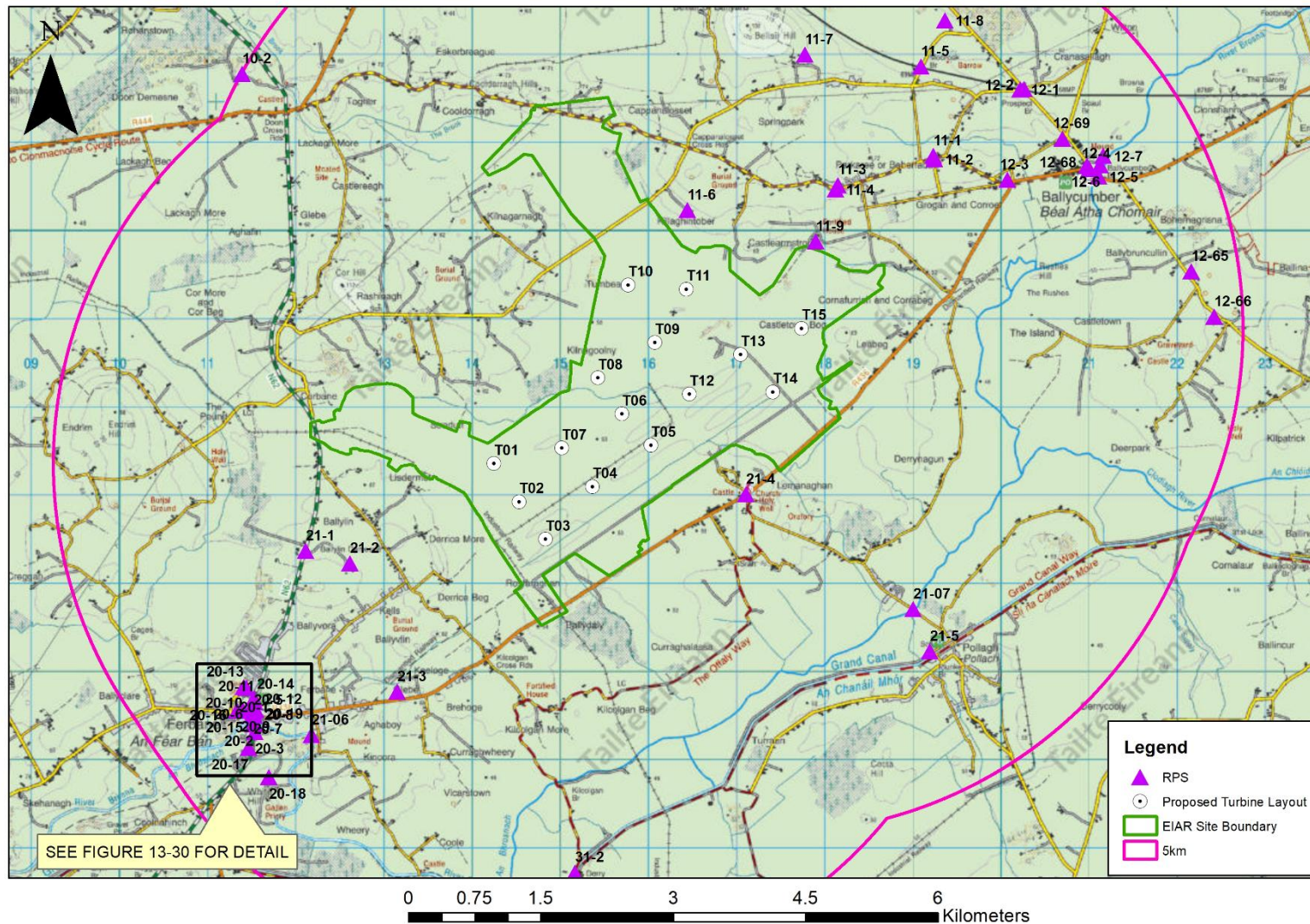


Figure 13-26: Protected structures within 5km of the nearest proposed turbine.

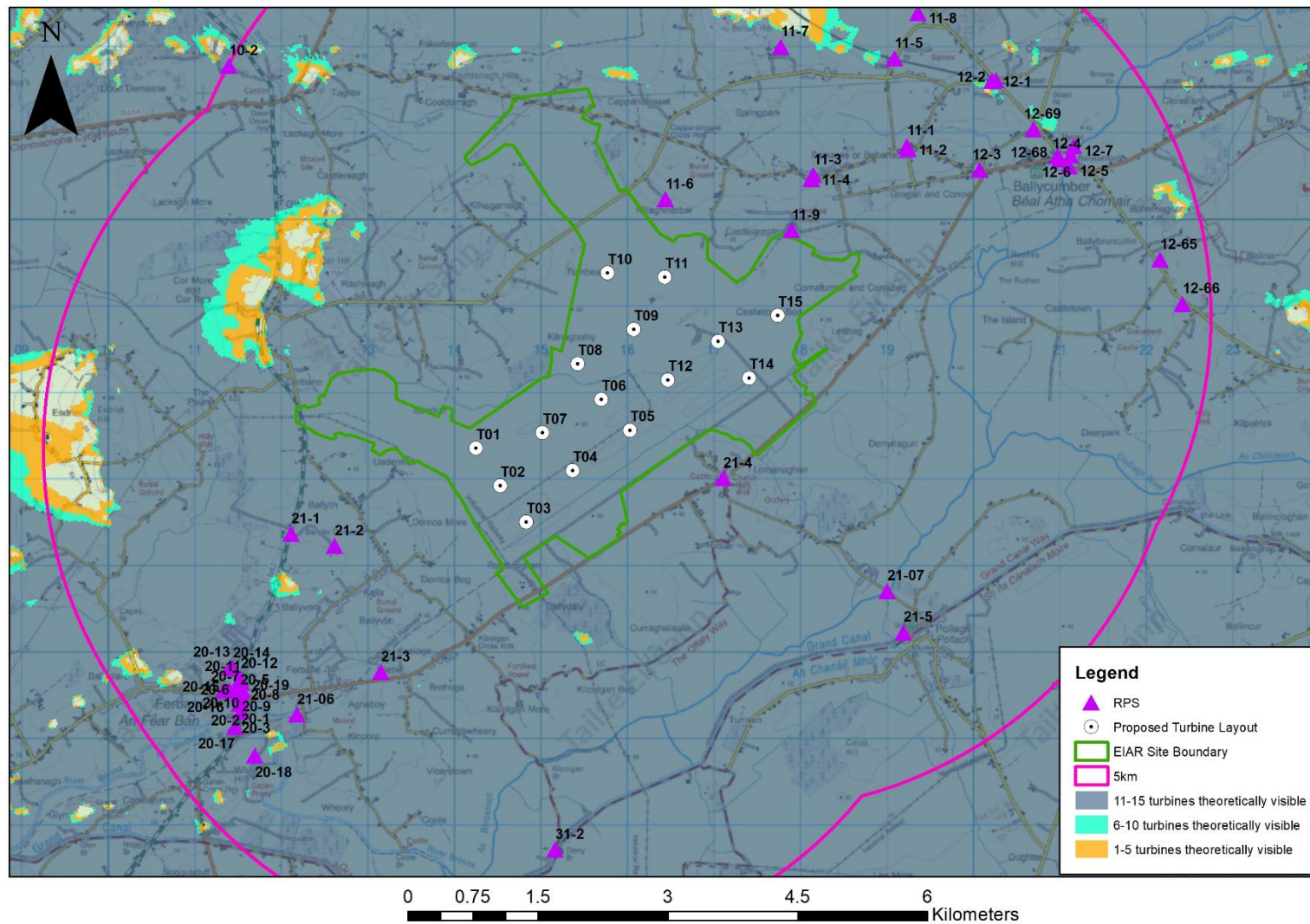


Figure 13-27: Protected structures within 5km of the nearest proposed turbine and ZTV.

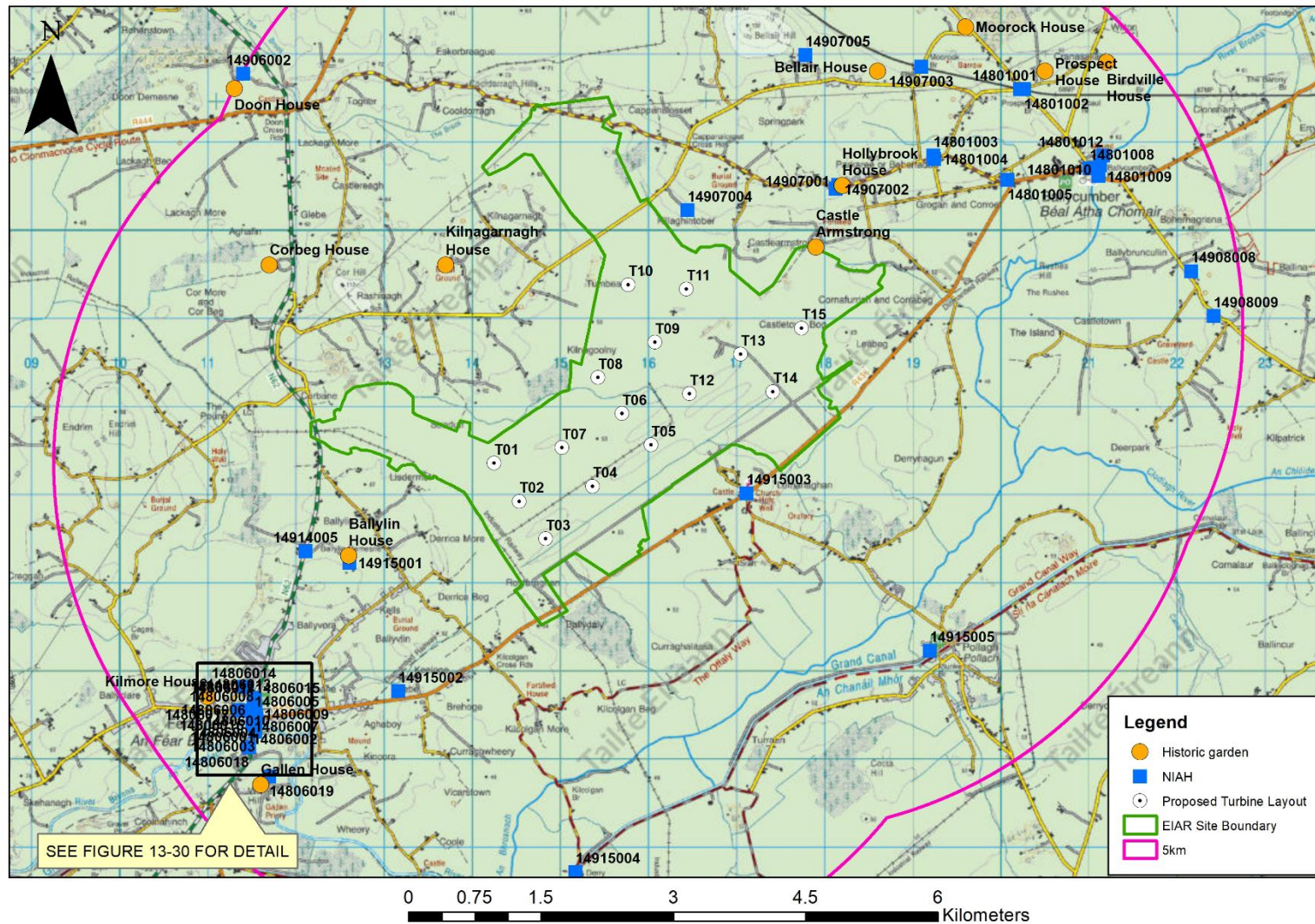


Figure 13-28: NIAH structures and historic gardens within 5km of the nearest proposed turbine.

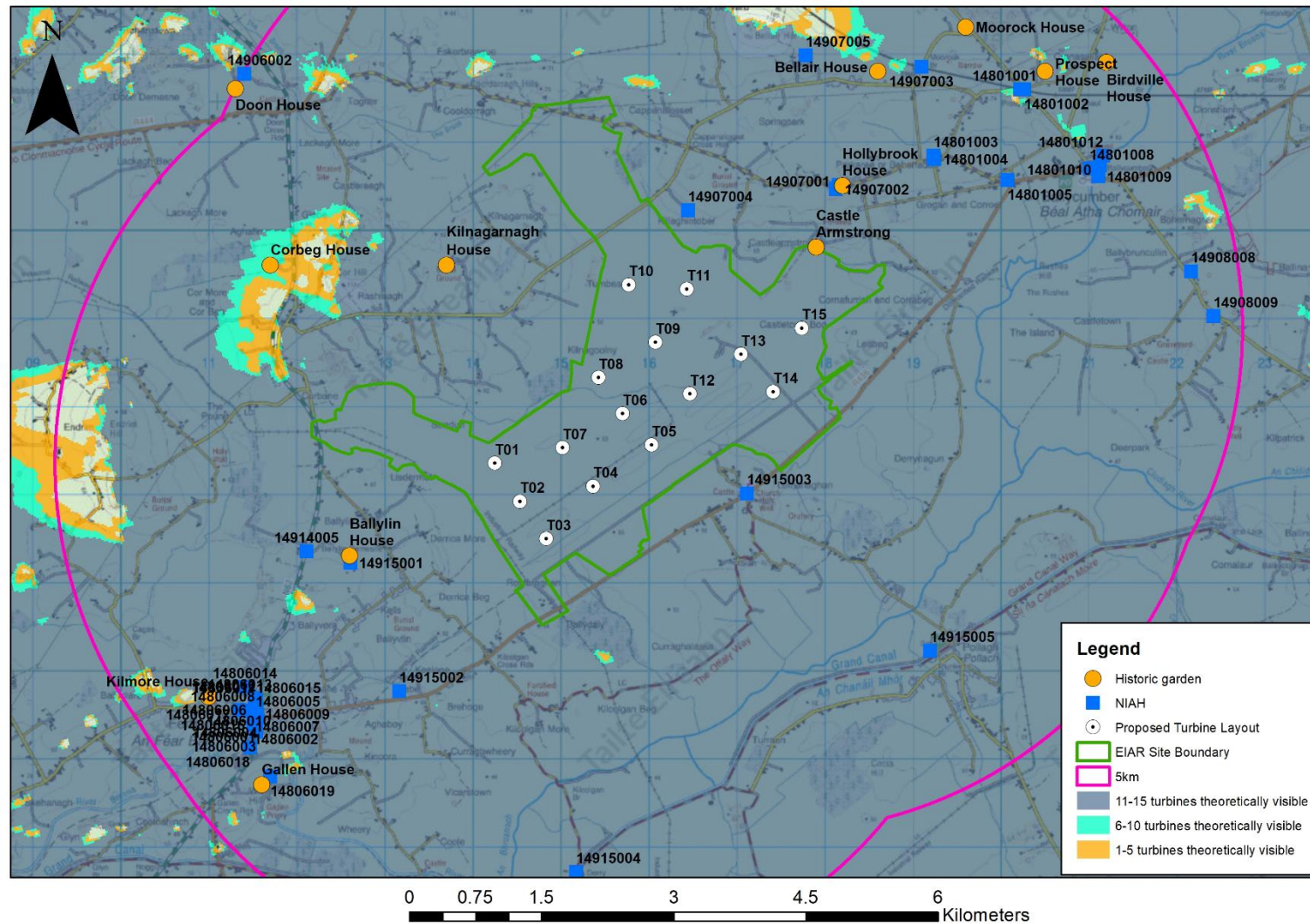


Figure 13-29: NIAH structures and historic gardens within 5km of the nearest proposed turbine and ZTV.

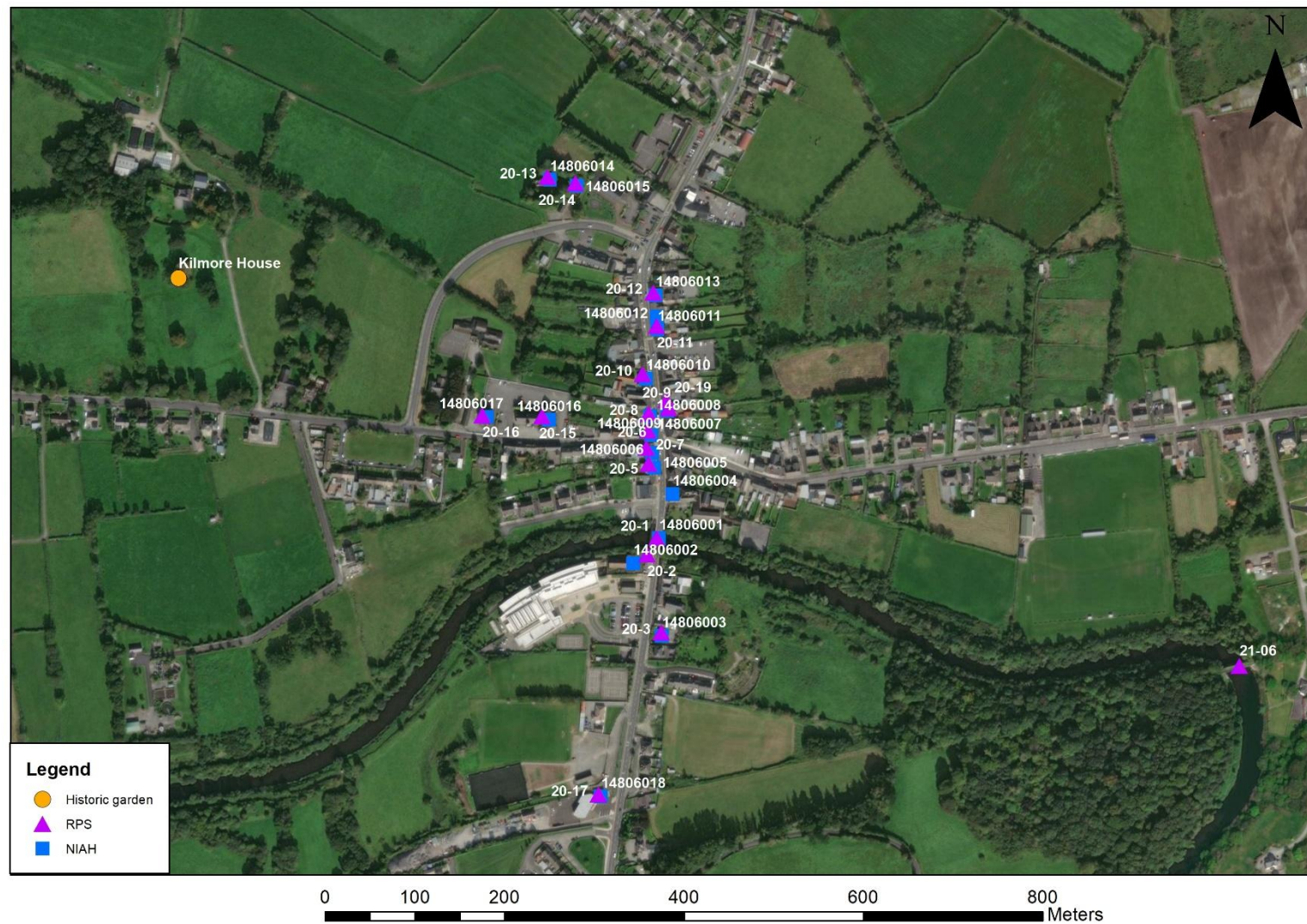


Figure 13-30: Detail of RPS, NIAH structures, and Historic Gardens in Ferbane village.

13.2.2.1.13

Cartographic Evidence and Local Cultural Heritage

The available historic Ordnance Survey maps were consulted for any items of cultural heritage merit that may be located within the Proposed Project site. Field survey also assisted in determining if any local cultural heritage features were located in the vicinity of any Proposed Project infrastructure. The cartographic sources consulted include the Down Survey barony maps (1656-8), Taylor and Skinner Road Maps (1777), the Bog commission Maps (1810) and the first (1829-41), second (1897-1913) and third (1830s -1930s) edition Ordnance Survey (OS) maps

Down Survey Barony Maps

The Down Survey maps of Ireland are available to view at www.downsurvey.tcd.ie and were consulted as part of this assessment (<https://downsurvey.tchpc.tcd.ie/>, accessed 19th December 2025). Following Cromwell's invasion of Ireland in the mid-17th century, the country had been devastated, the population decimated, the economic infrastructure destroyed. The English had effectively created a blank slate in Ireland onto which they now sought to project a new plantation society. Following this a Civil Survey was taken from 1654-6 in order to value the lands in Leinster, Munster, Ulster and Connaught. The Civil Survey is a collation of landowner records, standardized to townland level and was considered by many of the new owners to be inaccurate. The Down Survey, so called because a chain was laid down and a scale made, was therefore taken from 1656-8 under the direction of William Petty. The resulting maps, made at a scale of 40 perches to one inch (the modern equivalent of 1:50,000), were the first systematic mapping of a large area on such a scale attempted anywhere. The primary purpose of these maps was to record the boundaries of each townland and to calculate their areas with great precision. The maps are also rich in other detail showing churches, roads, rivers, castles, houses and fortifications.

The Down Survey barony map of Garrycastle depicts the area of the Proposed Project site as primarily comprising 'red bog' (Figure 13-32). The parish is Lemanaghan is shown with the church and possibly also the castle at Lemanaghan depicted.



Figure 13-31: Extract from the Down Survey map of County Offaly showing the general area of the Proposed Project site.

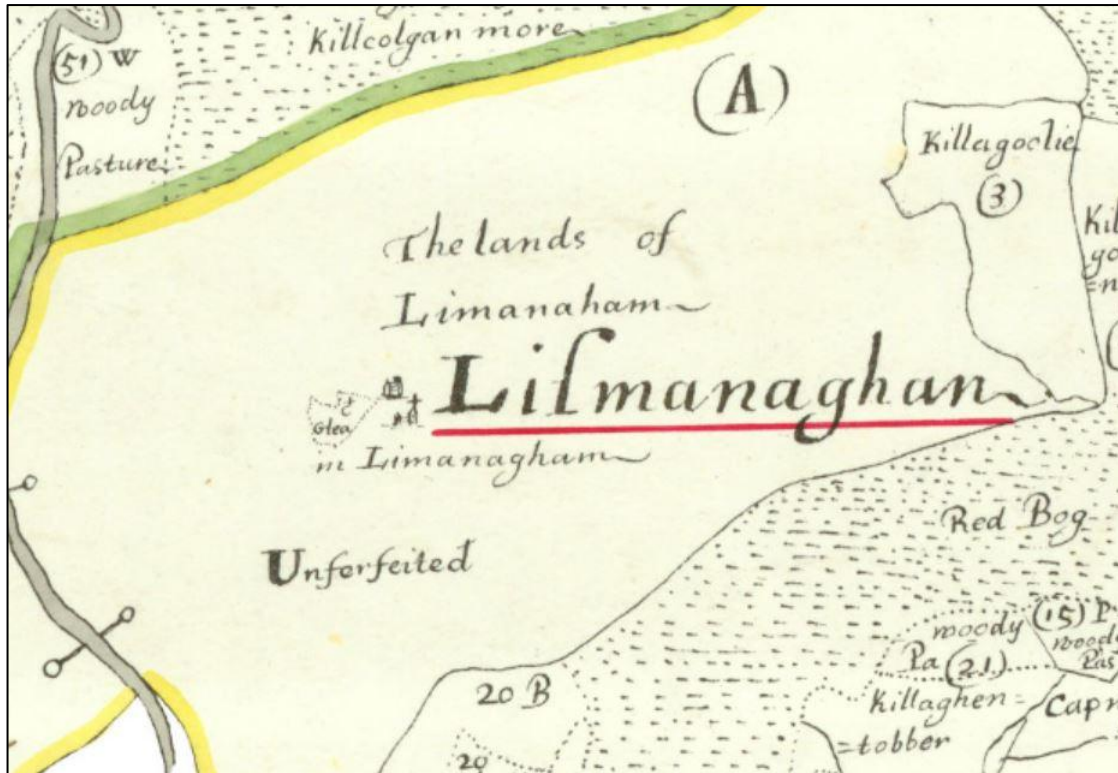


Figure 13-32: Extract from the Down Survey barony map of Garrycastle showing the parish of 'Lismanaghan' and the church therein.

Taylor and Skinner Road Maps

In 1777 George Taylor and Andrew Skinner surveyed and mapped the roads of Ireland and published their results the following year. The strip maps were welcomed for their accuracy and for showing details of roads and crossroads, naming landlords and their houses and outlining topographical features. The Taylor and Skinner road map depicting the areas around the Proposed Project site were consulted as part of this assessment (<https://www.swilson.info/>, accessed 19th December 2025). As no formal roads extend through the site, the closest road depicted is that which extends through Lemanaghan to the south. Map No. 81 'Road from Dublin to Loughrea by Shannonbridge' shows the house at Castlearmstrong and the village of Ballycumber (Figure 13-33) and also shows the church and castle at Lemanaghan in ruins (Figure 13-34).



Figure 13-33: Extract from Taylor and Skinner road map No. 81 showing Castlearmstrong and Ballycumber.



Figure 13-34: Extract from Taylor and Skinner road map No. 81 showing Lemanaghan church and castle in ruins.

Bog Commission Maps

The Bog Commission Maps comprise a collection of 56 maps of the bogs of Ireland created to accompany a series of parliamentary reports into improvements and drainage. From the 17th century there was pressure to develop bogs, seen as wastelands, for agriculture. In 1808, Sir Arthur Wellesley, the future Duke of Wellington, advocated the setting up of a commission to enquire into the possible utilisation of Irish bogs. The five members of the Commission were quickly appointed and began

operations on the 19th September 1809 (<https://www.bordnamonalivinghistory.ie/> accessed 3rd February 2026). The four reports set out, in detail, how 1,013,358 acres of bog could be drained, manured and brought into production as agricultural land. The reports were gradually published from 1810 to 1814, and each report contains detailed maps which set out the proposed lines of drainage and the highest and lowest point of each bog. Richard Griffiths Bog Commission maps of 1810 were consulted as part of this assessment (<https://virtualtreasury.ie/>, accessed 19th December 2025). A map of District No. 6 (1811) encompassing ‘Westmeath and King’s Counties’ by Thomas Townshend shows ‘Lamonahan Bog’ and the Proposed Project site (Figure 13-35). While little detail is shown, Castlearmstrong is indicated as is Derryvane island within the site (Figure 13-36). Lemanaghan village is shown to the south (Figure 13-37).

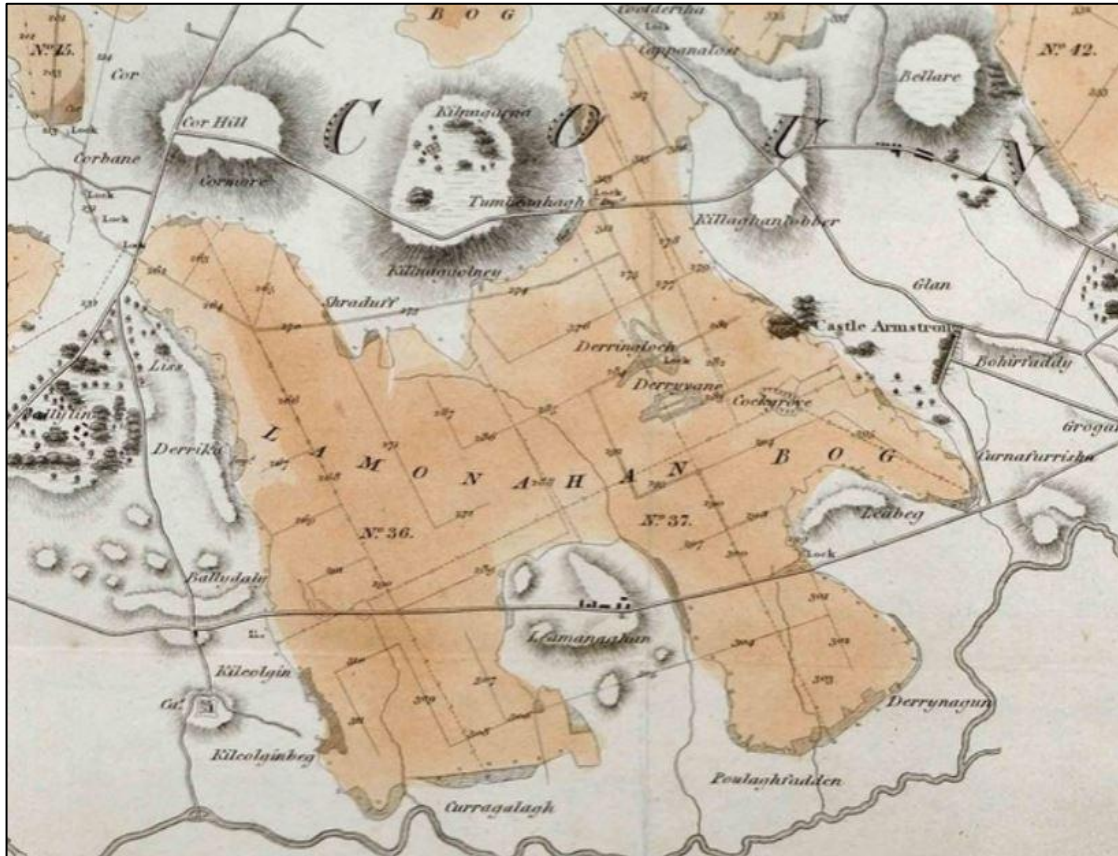


Figure 13-35: Extract from Bog Commission map (1811) showing 'Lamonahan Bog'.



Figure 13-36: Extract from Bog Commission map (1811) showing detail of Castlearmstrong and Derryvane Island.



Figure 13-37: Extract from Bog Commission map (1811) showing settlement at Lemanaghan.

First, Second and Third Edition OS maps

The Ordnance Survey came to Ireland in 1824 in order to carry-out a precise admeasurement of the country's 60,000 or so townlands as a preliminary to the larger task of reforming Ireland's local taxation system. The townland boundaries were demarcated by a Boundary Commission, and the Ordnance Survey had the task of measuring them. In addition to boundaries the maps are truly topographical in content. Drawn at the large scale of six inches-to-one-mile (1:10,560) it was important to mark all buildings, roads, streams, placenames, etc, that were required for valuation purposes. Ultimately the maps were used as a basis for the rateable valuation of land and buildings in what became known as Griffith's Valuation. Working from north to south, the survey began in Antrim and Derry in 1829 and was completed in Kerry in 1842. It was published as thirty-two county maps between 1832 and 1846, the number of sheets per county varied from 153 for County Cork to 28 for Dublin, each of the 1,994 sheets in the series depicting an area 21,000 by 32,000 feet on the ground. Each county was projected on a different central meridian and so the maps of adjacent counties do not fit neatly together at the edges. Map content stops at the county lines.

First Edition

The early Ordnance Survey maps are an unrivalled source for the period immediately before the Great Irish Famine (1847-50) when the population was at the highest level ever recorded. The maps depict an open landscape in the majority of the Proposed Project site. The stone/gravel road OF007-350— is shown on the first edition OS map within the Proposed Project site in Tumbeagh townland and extends from outside the site at the west to a small settlement (CH1) located on an island south of T11 (Figure 13-40). Both the road and the settlement are also shown on the second edition 25-inch map (see below) and field survey confirmed that the ruinous remains of a stone structure and associated walls are extant in the area of the settlement (CH1). According to local information this structure is known as the house at Derryvane and was used during the War of Independence 1919-1921 as an unofficial field hospital by the IRA Volunteers (<https://www.ouririshheritage.org/> website accessed on 12th August 2025). The proposed amenity trail will extend to the south of and up to CH1, however, impacts to same are not anticipated.

A second settlement is shown on an island to the south-east of CH1 and continues to be used for agricultural purposes. The enclosure OF007-048— is also depicted on the first edition map and is shown as a small oval area with trees on its perimeter (Figure 13-40).

Second Edition

The aforementioned road OF007-350— is clearly depicted on the second edition 25-inch OS map on which it appears to extend from the 17th century house OF007-065— which is located outside the Proposed Project site. Again, the road is shown extending as far as the small settlement (CH1) in Tumbeagh townland which is also shown on this edition of the historic mapping (Figure 13-41). The enclosure OF007-048— is also shown and is depicted as a hachured sub-oval feature. The majority of the remainder of the site is depicted as open featureless ground.

Third Edition

The Proposed Project site is depicted in a similar manner on the third edition 6-inch OS map to that shown on the second edition map.

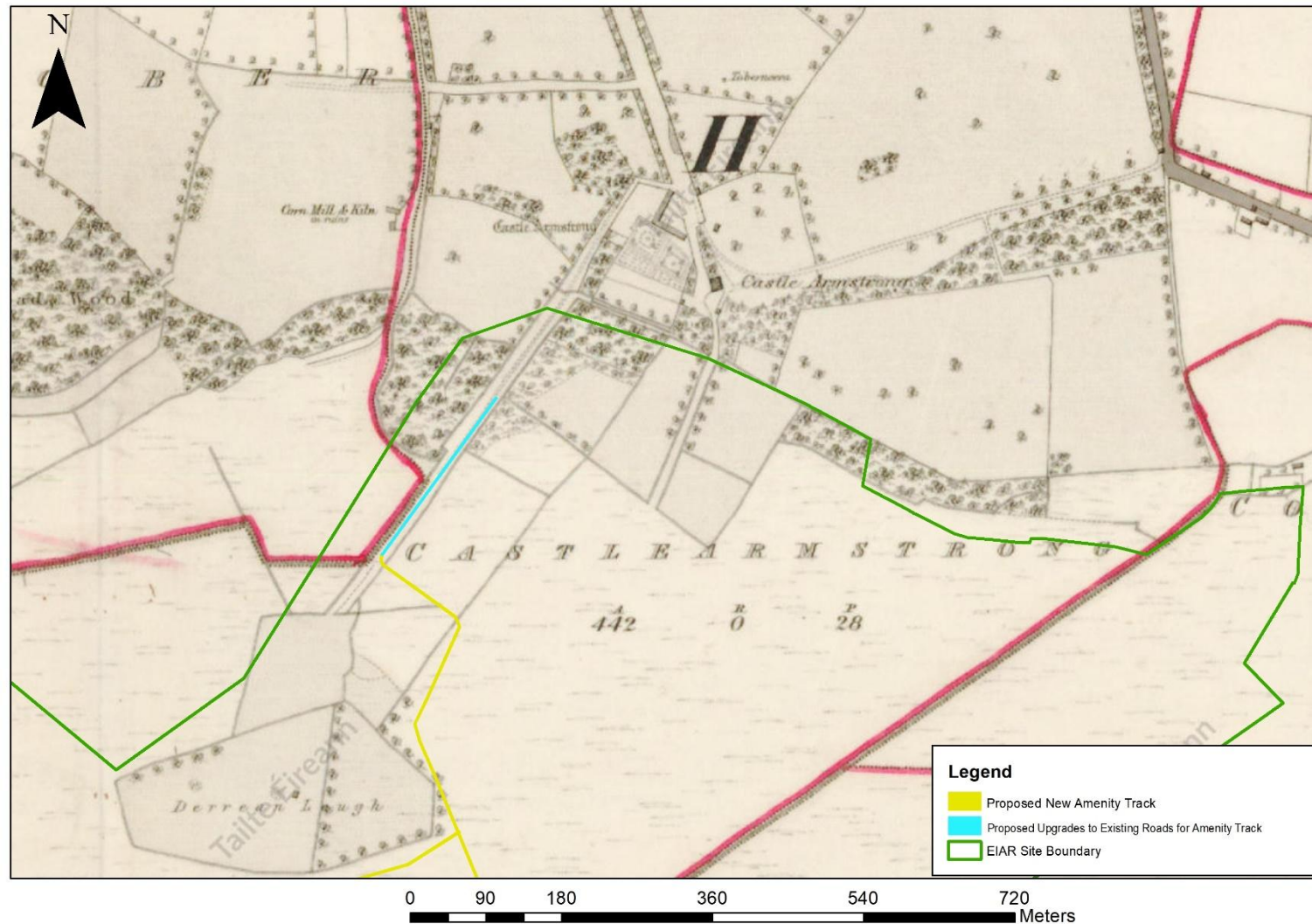


Figure 13-38: Castlearmstrong demesne (shaded grey) as depicted on first edition 6-inch OS map.

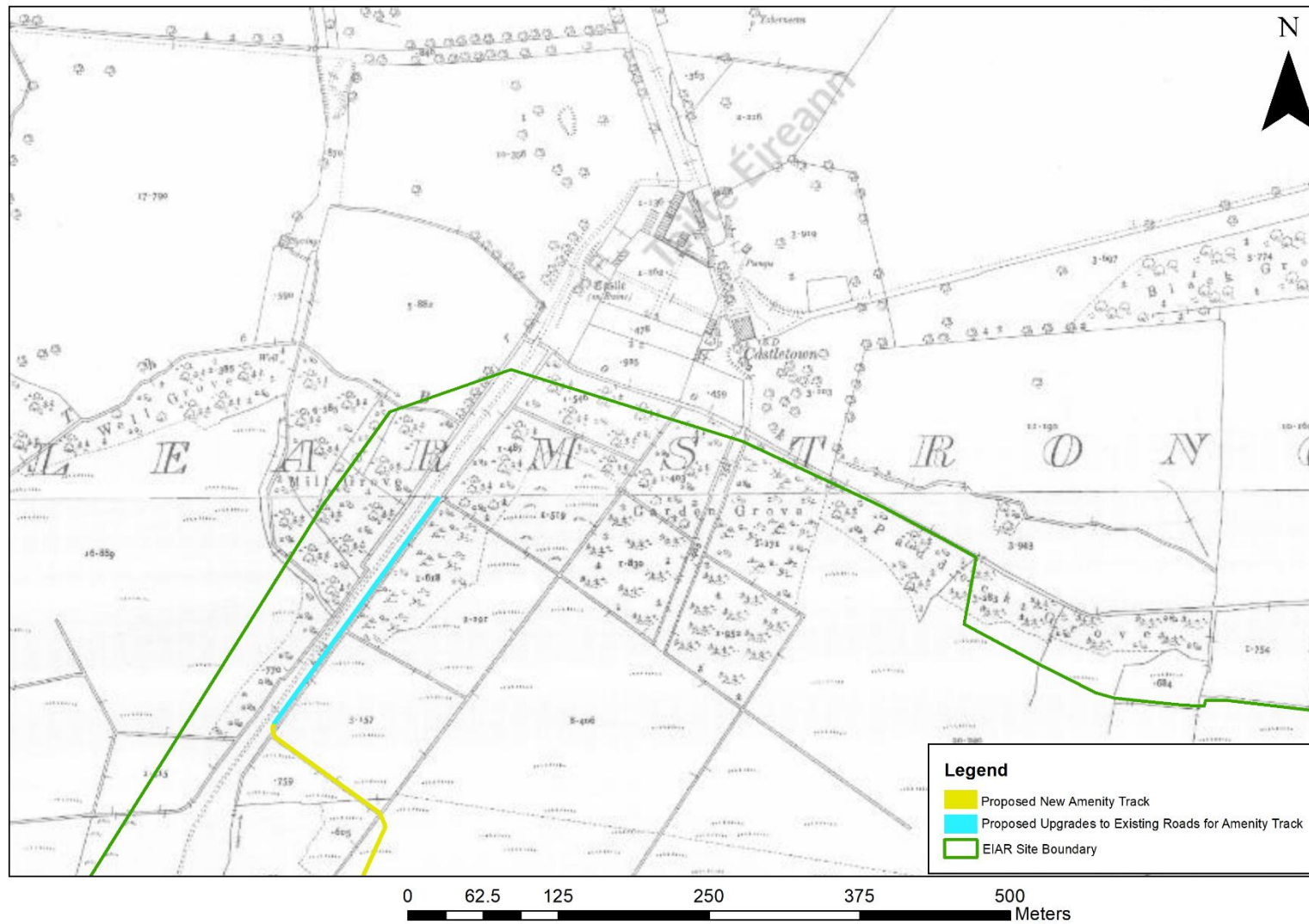


Figure 13-39: Castlearmstrong, now 'Castletown' and associated lands, as depicted on second edition 25-inch OS map.

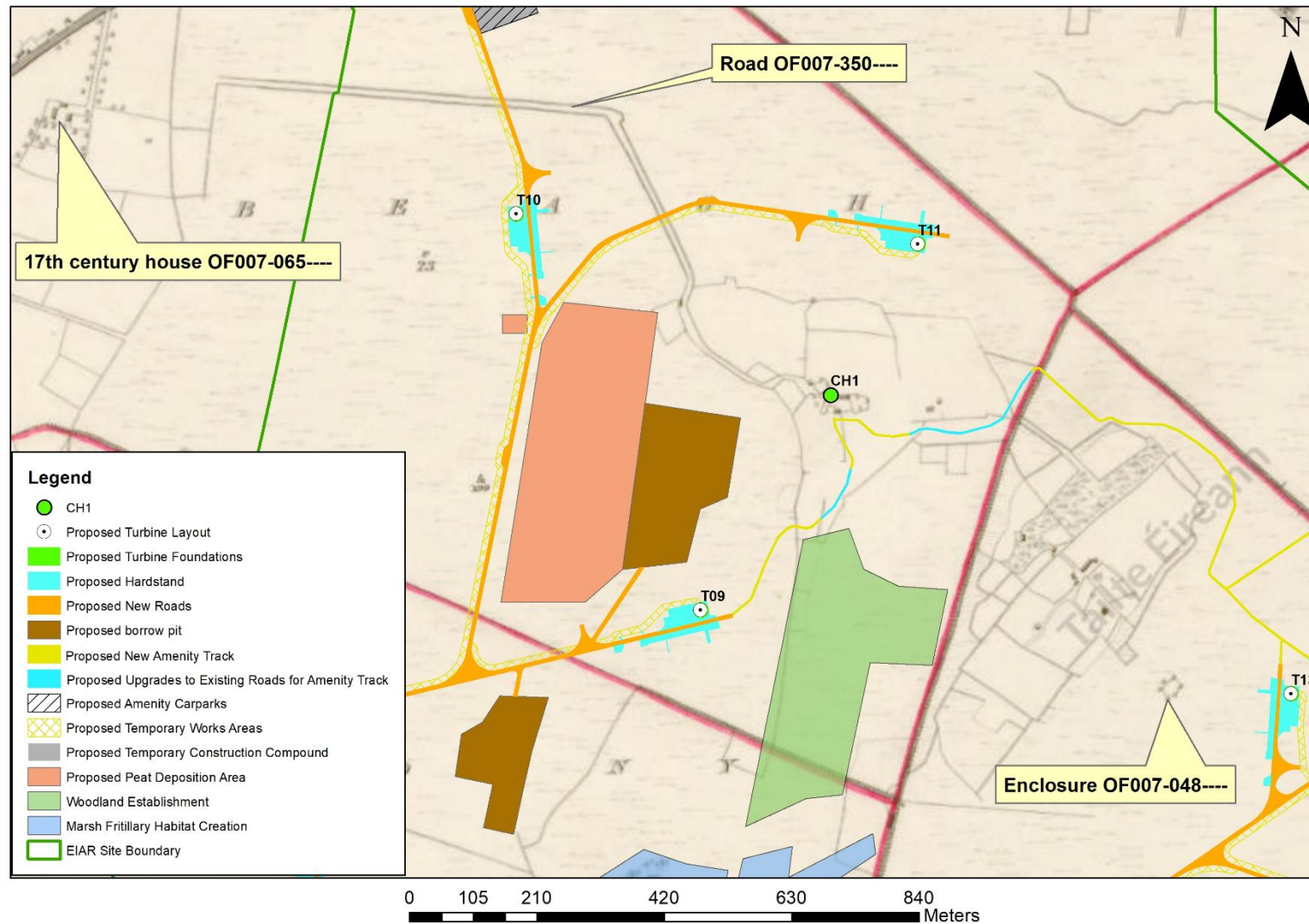


Figure 13-40: CH1 and other nearby features as depicted on first edition 6-inch OS map.

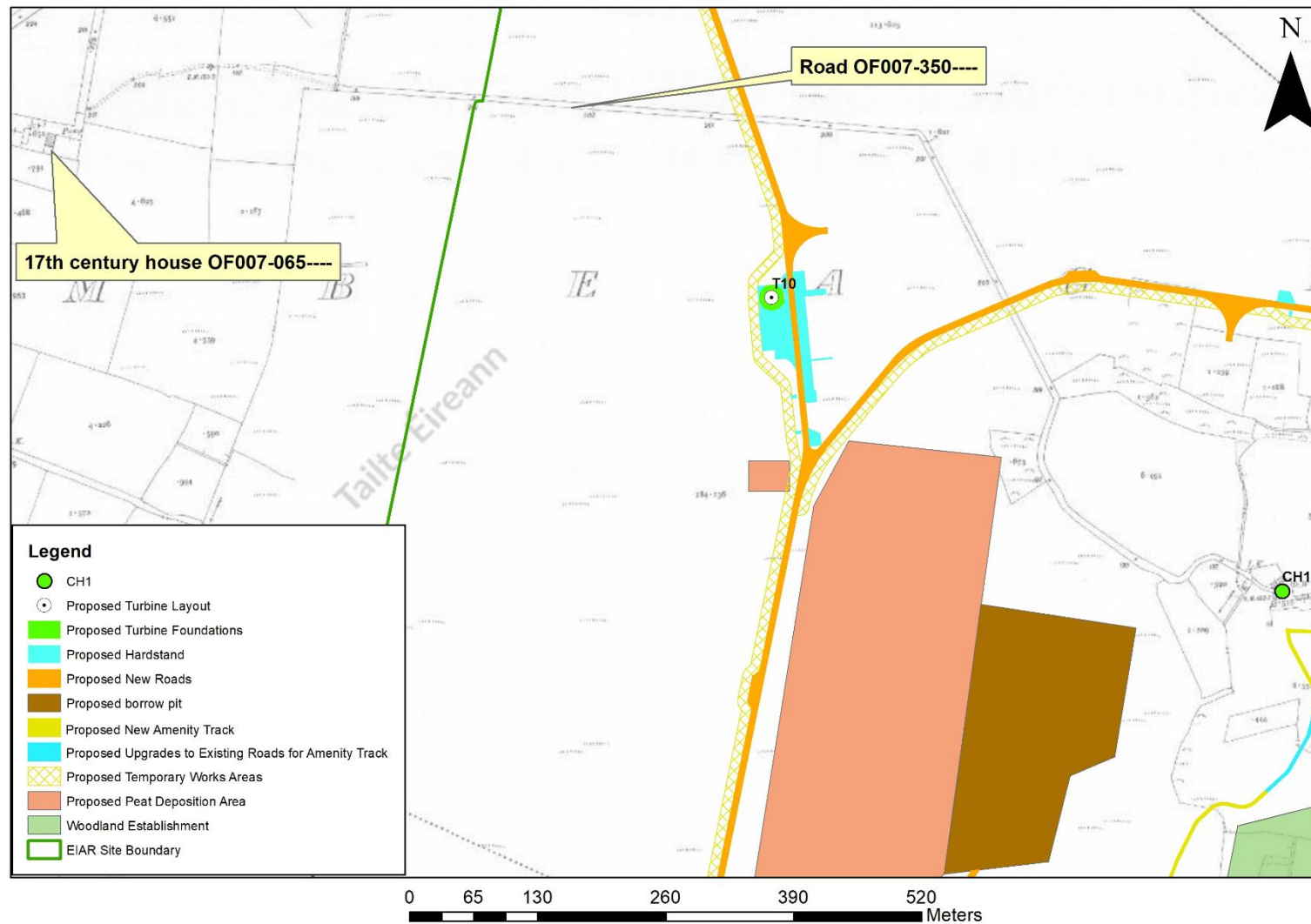


Figure 13-41: CH1, road OF007-350— and 17th century house OF007-065— as depicted on second edition 25-inch OS map.

13.2.2.1.14

Townlands and administrative boundaries

Townlands and administrative boundaries may indicate the presence of archaeological features within a development site. Administrative counties are subdivisions of pre-established counties which were formed for administrative purposes in the nineteenth and twentieth centuries. Baronies are administrative units larger than civil parishes and originally established as the primary subdivision of counties by the British administration in Ireland. Irish baronies which were formed at the time of the Norman conquest were usually named either after Irish territories, or from places which had been of importance in pre-Norman times. Irish baronies came into existence at different periods. The division of Ireland into counties and baronies was a process which continued down to the reign of James I. The original baronies in Ireland were the domains of the Norman barons; in the final stage of development, they were divisions of counties created merely for greater convenience of administration. The word barony is of feudal origin, and was applied to a tenure of a baron, that is, of one who held his land by military service, either directly from the king, or from a superior feudal lord who exercised royal privileges. The origin of the Irish barony (a division of land corresponding to the English hundred) is to be found in the grants of lands which were made to the barons of Leinster and the barons of Meath (Liam Price, 'Ráith Oinn', Éigse VII, lch. 186-7). Civil parishes are administrative units larger than townlands and based on medieval ecclesiastical parishes. Civil parishes, modern Catholic parishes and Church of Ireland parishes may differ in extent and in nomenclature. Counties are administrative units larger than baronies and originally established by the British administration in Ireland between the twelfth and the seventeenth centuries. Some of these were subsequently subdivided into smaller administrative county units.

Townlands are the smallest land units which were determined and established in the Irish administrative system in the first half of the nineteenth century. Many of the townlands were in existence prior to that. Townland names are a valuable source of information, not only on the topography, land ownership and land use within the landscape, but also on its history, archaeological monuments and folklore. Logainm.ie was utilised to ascertain the origin of the townland names within the Proposed Project (Table 13-10).

Table 13-10: Townlands within the Proposed Project and their meaning.

Townland Name	Irish	Meaning
CORBANE	An Chorr Bhán	white round hill
COR MORE and COR BEG	An Currach Mór agus An Currach Beag	big marsh and small marsh
RASHINAGH	Ros Eidhneach	wood, wooded height of ivy
STRADUFF	An tSraith Dhubh	black holm, river-meadow, valley-bottom
LISDERMOT	Lios Diarmada	Diarmaid's fort
DERRICA MORE	Doire Íce Mór	Great, big (oak-) wood, grove, thicket
ROSFARAGHAN	Ros Faracháin	wood, wooded height of –
LEMANAGHAN	Liath Mancháin	the grey place of Manchán – personal name (saint)
KILNAGHOLNY	Coill na Gualainne	the wood of the shoulder

TUMBEAGH	Tom Beitheach	bush of birches
KILNAGARNAGH	Coill na gCarnach	the wood of the — The meaning of carnach is unclear here. Recorded in 1837 as Wood of the cars
COOLDORRAGH	Cúil Dorcha	corner, nook
CAPPANALOSSET	Ceapaigh na Losad	Plot of the losset or kneading trough
KILLAGHINTOBER	Cill Achaidh an Tobair	Church of the field of the well
CASTLEARMSTRONG	Baile an Chaisleáin	Townland or homestead of the castle
CORNAFURRISH and CORRABEG	Corr na Foraoise agus An Currach Beag	Round hill of the forest
LEABEG	An Liath Beag	Small grey place

13.2.2.1.15 **The Schools' Collection**

The National Folklore Collection (NFC) is a UNESCO recognised folklore archive, and one of Europe's largest archives of oral tradition and cultural history, based at University College Dublin. It comprises various documentary formats including manuscript, photographic, audio, library, art and other archival collections. Part of the NFC is the Schools' Collection which comprises approximately 740,000 pages of folklore and local tradition which were collected by pupils from 5,000 primary schools in the Irish Free State between 1937 and 1939 (<https://www.duchas.ie/en/info/cbe-collections>, accessed 18th December 2025).

A number of stories pertaining to Lemanaghan and the surrounding area were collected by pupils at Ballycumber. The stories largely relate to the monastery at Lemanaghan and its patron saint Manchán. None of the stories contain information directly related to the Proposed Project site.

13.2.2.2 **The Proposed Grid Connection**

A 220kV connection between the Proposed Project and the national electricity grid will be necessary to export electricity from the Proposed Project. It is proposed to construct a 220kV electricity substation within the northern portion of the Proposed Project site, in the townland of Cooldorragh, within close proximity to the existing Shannonbridge-Maynooth 220kV overhead line (OHL). It is proposed to connect the substation to the existing Shannonbridge-Maynooth 220kV OHL via an OHL connection. The Proposed Grid Connection will consist of a total of approximately 0.8km of overhead line, 4 no. new steel masts, 2 no. new gantry structures, and the removal of 1 no. existing steel mast.

No recorded cultural heritage assets are located within the footprint of the proposed 220kV substation or to the Proposed Grid Connection infrastructure located under the existing OHL which is located in agricultural grassland approx. 0.4km to the north-west of the proposed substation location. The nearest recorded monument comprises a class 2 togher OF007-343— which is situated c. 270m north-west of the proposed 220kV substation and over 100m from the nearest proposed new steel mast (Figure 13-42). The monument was recorded by the Irish Archaeological Wetland Unit and is described as a NW-SE orientated structure with a minimum length of 3m and a width of 1.7m which was composed of four to five closely laid longitudinal timbers. No newly recorded monuments or structures were noted in the

substation footprint or at the Proposed Grid Connection infrastructure located under the existing OHL during the walk-over survey.

No Protected Structures, NIAH structures or historic gardens are located within the footprint of the proposed 220kV substation or Proposed Grid Connection infrastructure located under the existing OHL. The nearest Protected Structure and NIAH structure are located c. 1.5km to the south-east of the proposed 220kV substation and comprise the thatched cottage (RPS Ref. 11-06, NIAH Reg. 14907004) in the townland of Killaghintoher (Figure 13-43). It is also the closest structure to the Proposed Grid Connection infrastructure located under the existing OHL and is situated between c. 1.6km-1.9km to the south-east of same.

A review of the available cartographic sources including the first and second edition OS maps was also carried out for the Proposed Grid Connection but does not show any potential archaeological or cultural heritage items within the footprint of the Proposed Grid Connection infrastructure including the proposed 220kV substation.

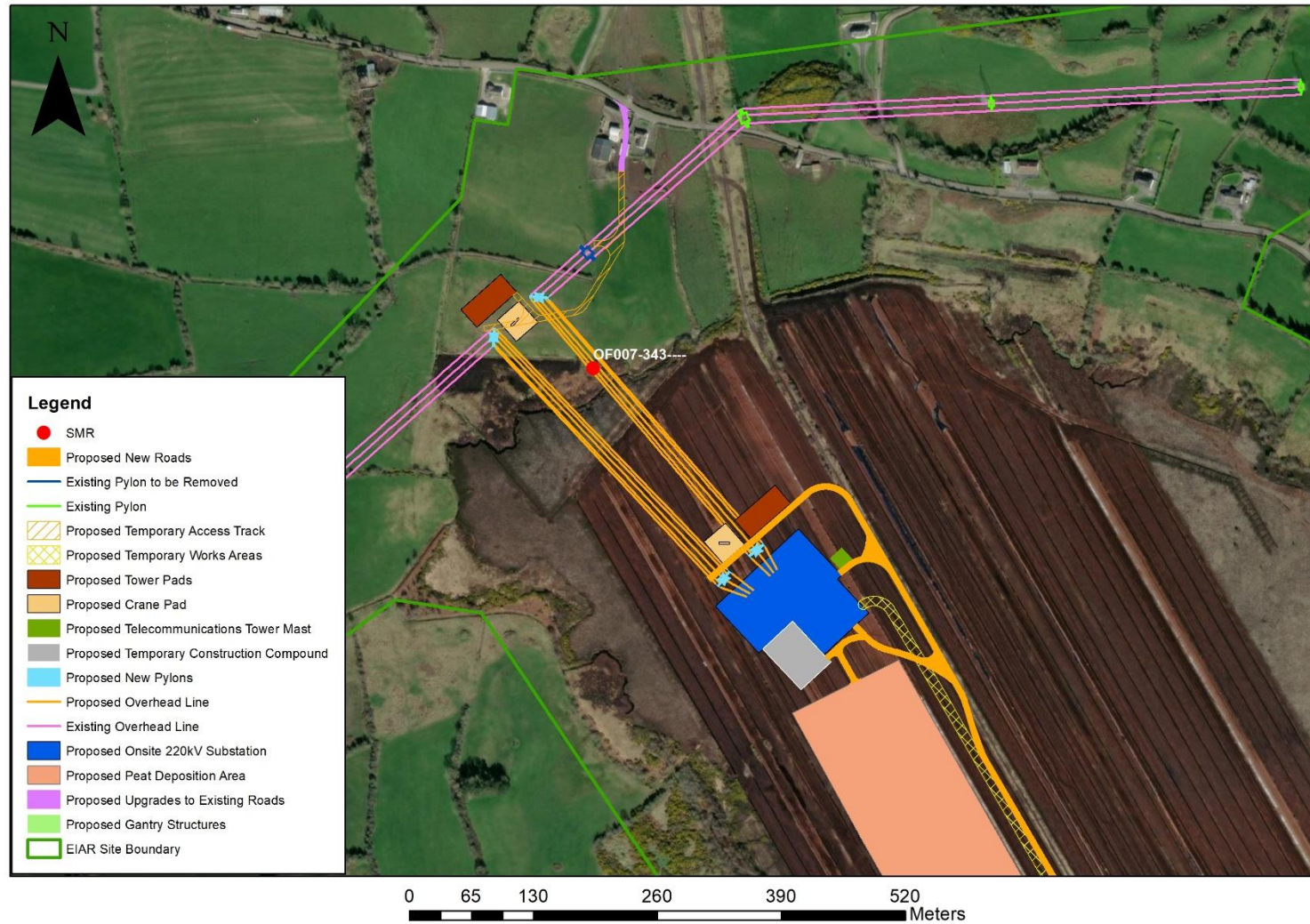


Figure 13-42: Proposed Grid Connection in relation to nearest recorded monument OF007-343.



Figure 13-43: Proposed Grid Connection in relation to nearest Protected Structure (11-06) and NIAH structure (14907004).

13.2.2.3 Proposed Turbine Delivery Route

For the purposes of this EIAR, the Port of Galway has been selected and assessed to facilitate turbine delivery to the site. It has been assumed that all turbine infrastructure will be imported to Galway Port. Road and junction widening are sometimes required along proposed turbine transport routes to accommodate the large vehicles used to transport turbine components to proposed project sites. The proposed transport route for the Proposed Project has been the subject of a route assessment to determine if any works are required along its length. Accommodation works will be required at various locations on the national and regional road network between the port of arrival in Galway and the Proposed Wind Farm. These will be limited to temporary measures including temporary local road widening, overruns of roundabout island and temporary relocation of some signs and street furniture (see Section 4.7.4 of Chapter 4 for details of required accommodation works).

A temporary access road (0.3km) for the facilitation of abnormal load deliveries will be required at Kennedy's Cross, located in the townland of Ballindown, Co. Offaly (junction of the N52 and N62 National Secondary Roads). These works will comprise the re-establishment of a temporary junction bypass road to facilitate the delivery of turbine components and other abnormal loads. The existing roadway installed during the construction phase of Derrinlough Wind Farm (Pl. Ref. PA19.306706), at Kennedy's Cross will be utilised for the delivery of turbine components to the Proposed Wind Farm. Following the completion of the construction phase of the Proposed Project the proposed gates will be removed and the boundary will be reinstated to its original condition with hedgerow. The temporary turbine delivery access road will be closed, covered with a layer of topsoil and reseeded. There are no recorded cultural heritage assets located within the footprint of the temporary access road at Kennedy's Cross. As the road was previously established for the delivery of turbine components to Derrinlough Wind Farm and will be re-established for the Proposed Project there is no potential for effects to sub-surface archaeology. In this regard no potential effects to the cultural heritage resource as a result of the works at Kennedy's Cross will occur.

13.3 Likely Effects and Associated Mitigation Measures

13.3.1 Do Nothing Scenario

If the Proposed Project were not to proceed, the potential for effects to Cultural Heritage would be removed. An alternative land-use option to developing a renewable energy project at the Proposed Project site would be to leave the site as it is, with no changes made to the current land-use practices.

In implementing this 'Do-Nothing' alternative, the site would continue to be managed under the requirements of the IPC licence (P0500-01) and therefore the ongoing decommissioning activities, site management and environmental monitoring would continue. In addition, if the Proposed Project were not to proceed, the implementation of the Draft Cutaway Decommission and Rehabilitation Plans (hereafter referred to as the Draft Rehabilitation Plan, Appendix 2-4) as required under IPC License would occur. These land uses and activities will also continue if the Proposed Project does proceed.

In implementing the 'Do-Nothing' alternative, however, the opportunity to capture a significant part of County Offaly's renewable energy resource would be missed, as would the opportunity to contribute to meeting Government and EU 2030 targets for the production and consumption of electricity from renewable resources and the reduction of greenhouse gas emissions. The opportunity to generate local employment, development contributions, and rates would also be forgone. In addition, the proposed amenity routes and associated car parks would not be constructed as part of the Proposed Project and therefore this recreational opportunity would be lost.

13.3.2 Construction Phase Potential Effects (Indirect)

Indirect effects, in terms of archaeology, architectural and cultural heritage are considered to be those effects which happen away from the site. This includes effects on visual setting of any cultural heritage assets in the wider landscape. Since these effects are largely only possible once development is operational, they are considered operational effects and are therefore discussed in Section 13.3.4 below. While visual effects are possible during the construction stage of a Proposed Project, an assessment of the fully operational development is considered more robust and all encompassing.

13.3.3 Construction Phase Potential Effects (Direct)

Direct effects refers to a 'physical effect' on a monument or site. The construction phase of a development may consist of earthmoving activities such as topsoil/peat removal and excavation works as part of the construction phase. This may have a number of potential negative effects on the known and potential archaeological heritage. These are outlined below with the proposed mitigation measures. The potential effects of the enhancement proposals (including habitat enhancements, and Lapwing and Whooper Swan enhancement areas) have also been considered. Given the nature of the works which will be required to create such areas (including flooding, mowing and planting of hedgerows) no potential direct effects to the recorded or sub-surface archaeological resource within the Proposed Project site are considered likely. All recorded monuments have been excluded from the proposed enhancement areas and in this regard no potential direct effects to same will occur. It is not considered that the works required for these areas have the potential for direct effects to sub-surface archaeology.

13.3.3.1 UNESCO World Heritage Sites and those on Tentative List

Identification of Effect

No UNESCO World Heritage Sites (WHS) or those on the Tentative list are located within the Proposed Project site. Two UNESCO WH Tentative List sites are located within 25km of the nearest proposed turbine and comprise the Hill of Uisneach and Birr Castle and Demesne. Birr Castle and Demesne is situated c. 23km south-west of the nearest proposed turbine, T3, while the Hill of Uisneach is located c. 24km north-east of the nearest proposed turbine, T15.

No direct effects to such assets as a result of the Proposed Project are therefore identified.

13.3.3.2 National Monuments

Identification of Effect

No National Monuments or those subject to a Preservation Order are located within or adjacent to the Proposed Project site. Six National Monuments in State Care and eight monuments subject to a Preservation Order are located within 15km of the nearest proposed turbine. The nearest National Monument comprises Gallen Abbey which is located c. 4.1km south-west of the nearest proposed turbine, T3 while the nearest monument subject to a Preservation Order is Coole Castle at Coole c. 4km south-west of T3.

No direct effects to these aspects of the cultural heritage resource as a result of the Proposed Project are identified.

13.3.3.3 Recorded Monuments

Identification of Effect

Four hundred and ninety-one (491) recorded monuments are located within the Proposed Project site. The majority of these monuments were identified as a result of a peatland survey carried out within the site by the IAWU in 1993-4 as part of the Archaeological Survey of Ireland Peatland Survey. During that survey a total of 470 sightings of archaeological material were made that were subsequently included in the SMR.

A variety of monument types are located within the site but are typical of those found in a peatland environment which largely comprise roads (trackways or toghers of either stone or wood), and structures – peatland as follows:

- › Roads - One hundred and fourteen (114) roads including Class 1, 2 and 3 toghers and gravel/stone trackways.
- › Structure – Peatland - The largest number of recorded monuments within the site with 371 present. They comprise wood found in peat, which has been deliberately deposited or processed and can vary from single pieces to deposits without a clear form or orientation but which are indicative of an archaeological structure.
- › Platforms – 3 platforms are located within the Proposed Project site and comprise a non-linear artificially raised area, usually of wood, with or without a clear shape found in a peatland context.
- › Post Row - 1 post row is located within the Proposed Project site. Post rows comprise a line of related posts, including stakes, in a peatland context.
- › Enclosures – 2 enclosures with no above-ground remains are located within the Proposed Project site.

The majority of recorded monuments within the Proposed Project site have been avoided by design, meaning that the Proposed Project layout was designed to avoid the known locations of these monuments. There are a number of instances, however, where Proposed Project infrastructure interacts with the location of recorded monuments as follows:

Road - class 1 togher OF007-083— (Map ID 326) – Described as an ENE-WSW orientated oak plank trackway visible over a length of 337.47m. The proposed new road to the substation extends across the location of this monument in a NW/SE direction. The monument was not visible either on the field surface or in drain sections during field survey carried out for this assessment in both 2021 and again in 2024/2025. The trackway was originally identified during the Peatland Survey carried out by the Irish Archaeological Wetland Unit (IAWU) in 1993-4. An average depth of milled peat extraction of 0.135m per year for Lemanaghan Bog has been established. This infers that an average depth of 0.95m of peat was removed from the bog between 2013, when the last re-assessment Peatland Survey was carried out, and 2020 when peat production ceased. Given that peat production continued in this area until 2020 it is likely that the trackway was removed by that activity. Also, no sightings of the trackway were made during the walk-over surveys carried out for this assessment. In this regard a direct effect to the monument is not identified, however, some mitigation is proposed as a precautionary measure given that an archaeological monument was previously recorded at this location and therefore other features may still be in situ.

The proposed road to T10 extends across the location of OF007-143— Class 2 togher which is described as an E/W orientated structure. It was identified during the 1993-4 Peatland Survey when it was then described as ‘poorly preserved’ having suffered ‘extensive machine damage’. Given that that peat production activities continued here until 2020, and the average depth of peat milled between 2013 and 2020, it is likely that the togher was removed by that activity. Furthermore, no sightings of the trackway were made during the walk-over surveys carried out for this assessment. In this regard a direct

effect to the monument is not identified, however, some mitigation is proposed under a precautionary scenario.

The proposed new road to T10 and T11 and associated cabling crosses OF007-350— Road - gravel/stone trackway at two points. As discussed in Sections 13.2.2.1.3 and 13.2.2.1.13 this road is shown on the available historic mapping and is also apparent on the ground, being visible during the walk-over survey carried out as part of this assessment. It survives as both a grassy track and also as patches of gravel and stone which are visible where vegetation is not present. It is considered that this monument is extant with physical remains present both at ground level and potentially beneath the peat surface. In this regard the construction of the proposed new road has the potential to directly affect the monument. In the absence of mitigation measures the potential effect is considered to be direct, negative, and permanent which would result in a Significant effect to the recorded monument. In order to ameliorate this potential effect mitigation measures are proposed as described below. Please also see Section 4.2 of the Peat & Spoil Management Plan for the floating road construction methodology specific to archaeological monuments.

The proposed new road from T12 towards T13 and T14 crosses the location of a N/S orientated Road - class 1 togher OF007-329— (Map ID 15). The description of the monument on the HEV notes that it was *‘first identified in 1993 during field survey carried out by the Irish Archaeological Wetland Unit, when it was traced for 454m. During the 1998 assessment the site was traced further and was finally identified as surviving intermittently over a length of 870m.’* The monument was subject to excavation in 1998 (Licence No. 98E0464) and the monument description states in relation to same that *‘The excavations were concentrated along a 360m length at the southernmost end of the site. The assessment recorded visible traces of the site at fourteen locations, and nine cuttings were established..... In each cutting the site had been truncated by Bord na Móna drains and severely damaged and partly removed by surface milling. The general pattern of construction revealed in these cuttings showed an upper surface of single longitudinal planks laid end to end supported two layers of substructure.’* Given that peat production activities continued here until 2020, and the average depth of peat milled between 2013 and 2020, it is likely that the togher was removed by that activity. Furthermore, no sightings of the trackway were made during the walk-over surveys carried out for this assessment. In this regard a direct effect to the monument is not identified, however, some mitigation is proposed as a precautionary measure given that an archaeological monument was previously recorded at this location.

Proposed Mitigation Measures

- Preservation in situ of the extant gravel/stone trackway OF007-350—. The proposed road to T10 and T11 and the associated cabling where it crosses the trackway will be floated in order to avoid direct effects to this recorded monument. A horizontal buffer of 0.5m of material (sand) will be made above a layer of geotextile placed directly over the trackway. The top of the clean sand layer will be dead rolled, without vibration. Base geogrid will be laid on top of the sand layer along the line of the road above which the floating road will be constructed. The road will comprise a depth of up to 1,000mm of selected granular fill amounting to up to 1.5m between the top of the trackway and the floating road surface.
- Archaeological monitoring of ground works associated with the proposed new roads where such works interact with the recorded monuments discussed above will be undertaken. The monitoring will be carried out under licence from the National Monuments Service (NMS). A report on the monitoring will be compiled on completion of the work and submitted to the NMS and the Planning Authority/Body. Should archaeological finds, features or deposits be uncovered during the monitoring further mitigation such as preservation in situ or preservation by record (excavation) may be required and will be carried out in consultation with the NMS.

Residual Effect

The implementation of a horizontal buffer (0.5m) and the use of a floating road to ensure the preservation in situ of gravel/stone trackway OF007-350— will not result in any direct effects to this monument. In this regard the residual effect is considered to be Permanent, Negative and Neutral / Imperceptible, which is Not Significant.

Any sites/features, if detected, during archaeological monitoring will be preserved by record (archaeologically excavated) or preserved in-situ (avoidance) and therefore a full record made of same. In this regard, the potential effect after the implementation of mitigation measures is likely to be Permanent, Negative and Slight, which is Not Significant.

Significance of Effects

The construction phase will not have any significant effects on recorded monuments since they will be dealt with by way of mitigation measures. The overall significance of effects is Not Significant.

13.3.3.4 Previously Unrecorded Monuments within the Proposed Project Site

No previously unrecorded archaeological monuments, stray finds or potential peatland structures were noted within the Proposed Project site during the walk-over survey. In this regard no potential direct effects to such finds or sites are identified.

13.3.3.5 Sub-surface Archaeological Potential

Pre-Mitigation Effect

The rich archaeological heritage of the Proposed Project site is evidenced by the numerous recorded monuments therein and the large number of archaeological objects recovered from the bogs within and surrounding the Proposed Project site over its lifetime as an industrial peat extraction site. Peat depths vary considerably through the site ranging from 0m-7m; however, large areas have surviving peat depths of 1m-3m with areas of deeper peat (c. 3m-4m and 4m-5m) also present. The potential therefore exists for the presence of sub-surface archaeological finds, structures and deposits within the peat, particularly where deeper peat remains in situ.

The excavation of peat for the construction of the Proposed Wind Farm and Proposed Grid Connection infrastructure has the potential to directly affect such sub-surface finds, structures and deposits should they exist within the site. In the absence of appropriate mitigation measures the potential effect is considered to be direct, negative and permanent and would result in a Significant effect to such features if present.

Proposed Mitigation Measures

- Archaeological monitoring under licence from the NMS of any further geotechnical / engineering trial pits or investigations will be carried out by a suitably qualified archaeologist. A report detailing the results of the monitoring will be compiled on completion of the work and submitted to the NMS and Planning Authority/Body.
- Pre-development testing, under licence from the NMS, will be carried out in areas where peat depths allow a meaningful investigation. Testing will only be undertaken in areas where ground disturbance will take place as part of the Proposed Project. Where peat depths become a limitation to testing, monitoring at the construction stage will be undertaken. The areas to be tested will be chosen by the appointed archaeologist and the number of test trenches agreed between the archaeologist and

the NMS through the licensing system. Peat depth data and local ground conditions may dictate the number and location of test trenches to be excavated. A report on the testing will be compiled on completion of the work. Should archaeological finds, structures or deposits be uncovered as a result of the testing further mitigation measures such as preservation in situ or preservation by record (excavation) may be required and will be decided in consultation with the NMS. Such mitigation measures will be implemented, where relevant, following consultation with the NMS.

- Archaeological monitoring of ground works during the construction stage of the Proposed Project under licence from the NMS will be carried out by a suitably qualified archaeologist. Should archaeological finds, structures or deposits be uncovered as a result of the monitoring further mitigation measures such as preservation in situ or preservation by record (excavation) may be required and will be decided in consultation with the NMS. Such mitigation measures will be implemented where relevant following consultation with the NMS. A report detailing the results of the monitoring and/or any further necessary mitigation as referred to above will be compiled on completion of the work and submitted to the NMS and Planning Authority/Body.

Residual Effect

Any archaeological features or sites, if detected during the testing or monitoring will be preserved by record (archaeologically excavated) or preserved in-situ (avoidance) and therefore a full record made of same. In this regard, the potential effect after the implementation mitigation measures is likely to be Long-term, Negative and Slight which is Not Significant.

Significance of Effects

The construction phase will not have any significant effects on unrecorded potential sub-surface sites since they will be dealt with by way of mitigation measures. The overall significance of effects is Not Significant.

13.3.3.6 Protected Structures

Identification of Effect

No Protected Structures subject to statutory protection are located within the Proposed Project site therefore no potential direct effects to this resource are identified.

13.3.3.7 NIAH structures and Historic Gardens

Identification of Effect

No NIAH structures or historic gardens are located within the Proposed Project site therefore no potential direct effects to this resource are identified.

13.3.3.8 Items of Local Cultural Heritage Merit

A small settlement (CH1) is located within the Proposed Project site on an island south of T11. The settlement is shown on the available historic mapping and field survey confirmed that the ruinous remains of a stone structure and associated walls are extant in the area of the settlement (CH1). According to local information this structure is known as the house at Derryvane and was used during the War of Independence 1919-1921 as an unofficial field hospital by the IRA Volunteers (<https://www.ouririshheritage.org/> website accessed on 12th August 2025). The proposed amenity trail

will extend c. 40m to the south of CH1, however no direct effects to this site are anticipated. Overall, it is considered that the location of CH1 with proximity to the amenity path may serve to highlight the settlement and provide information to amenity users to the site thus having a positive effect on the cultural heritage.

The amenity paths will provide signage throughout detailing the following:

- › A history of Lemanaghan Bog and its significance
- › Information on toghers and recorded monuments within the Proposed Wind Farm
- › Information on finds that came from Lemanaghan Bog
- › Information on the connectivity of the site to the Lemanaghan Church and Graveyard and Pilgrim path

These amenity pathways and additional connections are discussed and shown on the Lemanaghan Amenity Map in Appendix 4-3.

13.3.4 Operational Phase Potential Effects (Indirect)

Indirect effects are where a feature or site of archaeological, architectural heritage merit or their setting is located in close proximity to a proposed development. Indirect effects here are mainly concerned with effects on setting of cultural heritage sites.

Effects on settings of sites may arise when a development is proposed immediately adjacent to a recorded monument or cluster of monuments. While the Proposed Project may not affect a site, it may alter the setting of a monument or group of monuments. There is no standardised industry-wide approach for assessing the degree of effect to the setting of a monument. For purposes of assessing visual effects on setting, the uniqueness of the monuments, the potential interrelationships of monuments, the inter-visibility of monuments, visual dominance and whether a setting is altered or unaltered can be used to assess effect. The nature and dominance of the Proposed Project is also taken into consideration and the topography within which the Proposed Project is located. Operational effects are considered largely as a result of the proposed turbines rather than other elements of the Proposed Project which would not be dominant in the wider landscape setting in general, however the proposed onsite 220kV substation and proposed met mast are also considered. The assessment of effects on visual setting was undertaken using both the Zone of Theoretical Visibility (ZTV) map in the Landscape and Visual Impact Assessment (LVIA), as presented in Chapter 14 of this EIAR, and also with reference to photomontages / Photowires. The ZTV is a bare-ground model which does not take screening vegetation into account.

An assessment of the proposed turbine layout from a landscape and visual perspective was also carried out with regard to turbine tip height (TH), specifically 200m v 220m TH. The assessment took residential and visual amenity receptors and cultural heritage receptors into account as detailed in Section 3.2.5.2.2 of Chapter 3 of the EIAR as follows:

‘A detailed landscape and visual assessment of the turbine layout with a 200m tip height vs a 220m tip height was conducted to determine the potential effects of the Proposed Wind Farm on residential and visual amenity as well as cultural heritage. As there is only a 10% difference in the overall tip height of the two proposed turbine specifications, visual comparison only revealed subtle difference, particularly at distances greater than 3km from the proposed turbines. From a residential and visual amenity perspective and cultural heritage perspective, it was determined that the required setbacks between turbines with a tip height of 220m afforded more screening from nearby receptors and decreases the horizontal extent of the view of the proposed turbines in close proximity. With this in mind, the Proposed Wind Farm was reduced to from 16 no. to 15 no. turbines with a 220m tip height.’

13.3.4.1 UNESCO World Heritage Sites and those on Tentative List

Identification of Effect

No UNESCO WHS or those on the Tentative list are located within the Proposed Project site. Two UNESCO WH Tentative List sites are located within 25km of the nearest proposed turbine and comprise the Hill of Uisneach and Birr Castle and Demesne. Birr Castle and Demesne is situated c. 23km south-west of the nearest proposed turbine, T3, while the Hill of Uisneach is located c. 24km north-east of the nearest proposed turbine, T15.

Clonmacnoise was previously included on the Tentative List of UNESCO WHS but was removed in 2021 when the list was updated. Clonmacnoise and the National Monuments therein is therefore assessed in Section 13.3.4.2 below.

The ZTV demonstrates no theoretical visibility of the proposed turbines from Birr Castle and Demesne therefore no potential visual effects to this UNESCO WH Tentative List site as a result of the Proposed Project are identified.

Theoretical visibility of 11-15 proposed turbines is demonstrated from the Hill of Uisneach. The Hill of Uisneach is included in the Royal Sites of Ireland which has been accepted on to the UNESCO WHS Tentative List. Given that the Royal Sites of Ireland (including the Hill of Uisneach) have not been inscribed on to the World Heritage List and remain on the Tentative List, their Outstanding Universal Value (OUV) has not been defined (see Section 13.2.2.1.1 above). The UNESCO Toolkit Guidance is specifically designed to assess impacts on properties that are already inscribed on the UNESCO World Heritage List or those with formally adopted Statements of OUV. As the OUV for any of the Royal Sites of Ireland including the Hill of Uisneach have not been defined there is no agreed framework against which to assess the impact of a development on those sites. This assessment of potential effects is, however, carried out with regard to any potential OUV, site integrity and associated views from the Hill of Uisneach.

Buffer zones around the Royal Sites, including the Hill of Uisneach, have not been defined. The panoramic view from the Hill of Uisneach is, however, protected within the Westmeath County Development Plan (WCDP) (see Section 13.2.2.1.1 above). At a distance of c. 24km to the south-west the Proposed Project is located a significant distance outside the inner core, outer core and wider buffer zones as identified in the WCDP. While the ZTV demonstrates theoretical visibility of the proposed turbines from the Hill of Uisneach, given the distance of the Proposed Project to the Core and Buffer Area the immediate setting of the Hill of Uisneach or its associated monuments will not be affected by the introduction of the proposed turbines. At this distance, the proposed turbines while visible from certain vantage points on the Hill, will not dominate the view or be visually disruptive. Equally, the proposed turbines will not compete with the elevated location of the Hill of Uisneach as a dominant feature in the landscape. As such, the visual change as a result of the Proposed Project is considered small in scale, leading to a low magnitude of change. While the introduction of the Proposed Project will result in a change to the wider setting in which the Hill of Uisneach is located, given the intervening distance, topography and vegetation this is considered to be Imperceptible, Negative, and Long-Term, which is Not Significant; however it is noted that effect are Reversible as it will only last for the lifetime of the proposed turbines and will be reversed once they are decommissioned.

The WCDP also makes reference to the potential for developments to result in significant changes to the inter-relationship of the inner Core area and relevant monuments in the surrounding landscape. Section 13.2.2.1.1 above has discussed relevant monuments in the wider landscape of the Hill of Uisneach and their potential cultural, ritual, royal or spiritual connectivity to the site. As detailed above, the majority of these monuments are located to the east and north-east of the Hill Uisneach with some situated to the south and south-west. The Proposed Project site is located to the south-west of the Hill of Uisneach and there are no instances where the proposed turbines are located between those monuments in the wider landscape discussed above and the Hill of Uisneach. In this regard, no

potential indirect (visual) effects to potential sightlines between these monuments and Uisneach are identified. In this regard, the proposed turbines do not interrupt or compromise any potential visual link between the Hill of Uisneach and those monuments. Any perceived cultural or visual inter-relationship between the Hill of Uisneach and those sites in the wider landscape will continue despite the introduction of the Proposed Project, and as such no potential effects to the inter-relationship of the inner Core area (as identified in WCDP) and relevant monuments in the surrounding landscape will occur.

The Hill of Uisneach is located over 22km to the north-east of the proposed onsite 220kV substation and associated Proposed Grid Connection infrastructure. Given the intervening distance, topography and screening no potential visual effects as a result of the proposed substation and Grid Connection to the Tentative List WHS are identified. Similarly, the Hill of Uisneach is located c. 26km north-east of the proposed met mast. Given the intervening distance, topography and screening no potential visual effects as a result of the proposed met mast are identified.

The distance of the Hill of Uisneach from the proposed turbines will mitigate potential visual effects. It is also noted that natural screening, boundaries, buildings and vegetation are not taken into account in the ZTV model. No potential visual effects to the immediate setting of this tentative list UNESCO WHS as a result of the proposed turbines, 220kV substation and associated grid connection infrastructure or the proposed met mast are identified. A Long-Term, Imperceptible, Negative effect, which is Not Significant, to the wider setting in which the Hill of Uisneach is located is acknowledged but is Reversible. No mitigation measures are therefore proposed.

Mitigation Measures

None proposed.

Residual Effect

The residual effect is considered to be Long-term, Negative and Imperceptible, which is Not Significant.

Significance of Effects

The operational phase will not have any significant effects on UNESCO World Heritage Sites and those on the tentative list. The significance of effect is considered to be Not Significant.

13.3.4.2 National Monuments

Identification of Effect

No National Monuments or those subject to a Preservation Order are located within or adjacent to the Proposed Project site. Six National Monuments in State Care and eight monuments subject to a Preservation Order are located within 15km of the nearest proposed turbine. The nearest National Monument comprises Gallen Abbey which is located c. 4.1km south-west of the nearest proposed turbine, T3 while the nearest monument subject to a Preservation Order is Coole Castle at Coole c. 4km south-west of T3.

National Monument 504 Gallen Abbey

Gallen Abbey and associated monuments is located c. 4.1km south-west of the nearest proposed turbine, T3. The ZTV demonstrates theoretical visibility of 11-15 proposed turbines from this location. A photowire captured from north of the cemetery at Gallen (PWVP-N), however, illustrates that the proposed turbines are located beyond a dense stretch of forestry and are not visible from this location.

In this regard no potential visual effects to the National Monument as a result of the Proposed Project are identified.

National Monument 82 Rahan Churches

National Monument No. 82 comprises two churches and associated monuments at Rahan Demesne townland c. 8.8km east of the nearest proposed turbine T15. The churches are located in an area in which the ZTV demonstrates theoretical visibility of 11-15 proposed turbines. A photowire (PWVP-G) captured from the monuments, however, demonstrates how existing natural screening and topography obscures the proposed turbines from view. The screening was also evident from the visit to the monument carried out for this assessment. Given the distance of the National Monuments at Rahan and the existing natural screening and topography no potential visual effects as a result of the Proposed Project are identified.

National Monument 336 Clonfinlough Stone

This comprises a large earthfast boulder the surface of which is covered with water solution holes, incised lines and several other unusual symbols or features. It is situated just over 10km from the nearest proposed turbine, T01, in an area in which the ZTV suggests theoretical visibility of 11-15 proposed turbines. Given the distance of this monument from the nearest proposed turbine, effects to its immediate setting will not occur. A change to the wider setting in which the monument is located is acknowledged, however, given the intervening distance and existing natural screening the potential effect is considered to be Imperceptible.

National Monument 81, 250, 601 Clonmacnoise

The National Monuments at Clonmacnoise comprise a monastic complex containing multiple archaeological monuments including a Cathedral, nine churches, two round towers, three high crosses and over 700 grave slabs. An Anglo-Norman castle and an associated field system which are located a short distance to the south-west of the monastic complex are also included in National Monument No. 81. As detailed in Section 13.1.4.5, the OCDP notes the importance of Clonmacnoise and illustrates Clonmacnoise Heritage Zone. The Proposed Project is located over 11km to the east-southeast of the monastic centre with the nearest proposed turbine (T01) located over 13km from the National Monuments therein. In this regard the Proposed Project is situated outside of the Clonmacnoise Heritage Zone and at a distance of c. 10km from the Primary Area as denoted in Figure 10.7 of the OCDP. The ZTV demonstrates partial theoretical visibility of the proposed turbines from the National Monuments at Clonmacnoise, however, Photowire PWVP-C clearly illustrates how existing natural screening will effectively screen the proposed turbines from view from within the monastic site. Given the distance of the monastic complex at Clonmacnoise from the nearest proposed turbine, effects to its immediate setting will not occur. A change to the wider setting in which the monastic complex is located is acknowledged, however, given the intervening distance and existing natural screening the potential effect is considered to be Imperceptible.

National Monument 313 & 678 Durrow Abbey

A monastery was founded at Durrow in the 6th century, reputedly by St Columcille. The complex of monuments which are located at the site today date to both this early medieval period of the site's history and to the late medieval period. The church at Durrow Abbey is located c. 14km east of the nearest proposed turbine, T15. The ZTV demonstrates theoretical visibility of 11-15 proposed turbines from some areas of the monument complex at Durrow Abbey. It is noted, however, that the area in question is enclosed by dense pockets of woodland which will effectively screen the Proposed Project from view. Given the distance of the National Monuments at Rahan and the existing natural screening and topography no potential visual effects as a result of the Proposed Project are identified.

National Monument 223 Bealin Cross

One National Monument (No. 223 Bealin Cross) located within 15km of the nearest proposed turbine (T10) is located in county Westmeath. The present location of the cross is in pasture on a hill in the townland of Twyford. The ZTV demonstrates theoretical visibility of 11-15 of the proposed turbines from this location, albeit at a distance of c. 14.5km from the nearest proposed turbine, T10. Given the distance of the cross from the nearest proposed turbine, effects to its immediate setting will not occur. A

change to the wider setting in which the cross is located is acknowledged, however, given the intervening distance and existing natural screening and topography the potential effect is considered to be Imperceptible.

Preservation Order No. 49/1937 Coole Castle

This monument subject to a preservation Order comprises a tower house OF015-017— located c. 4km south-west of the nearest proposed turbine, T3. The ZTV demonstrates theoretical visibility of 11-15 proposed turbines from this location. A photowire (PWVP-H) captured from the site, however, shows how existing natural screening largely obscures the proposed turbines from view with only three turbines partially visible above the tree line. While some partial turbine visibility will occur from this location, the turbines will appear as small-scale elements in the distant background. Given the distance of the Proposed Project visual effects to the immediate setting of the monument will not occur. A change to the wider setting in which the tower house is located is acknowledged but is regarded as Not Significant.

Preservation Order 8/1932 Ballynahinch Crannóg

This monument subject to a Preservation Order is located c. 10.8km to the north-east of the nearest proposed turbine, T15. It comprises a crannóg which was excavated in 1942. The ZTV demonstrates no theoretical visibility of the proposed turbines from the monument therefore no potential visual effects as a result of the Proposed Project are identified.

Preservation Order 6/1956 Ringfort

The ringfort at Broughal is located c. 11km to the south of the nearest proposed turbine, T03. It is situated in an area in which the ZTV demonstrates theoretical visibility of 11-15 turbines. Given the distance of the ringfort from the nearest proposed turbine, effects to its immediate setting will not occur. A change to the wider setting in which the monument is located is acknowledged, however, given the intervening distance and existing natural screening and topography the potential effect is considered to be Imperceptible.

Preservation Order 86/1940 Clonony Castle

This monument comprises a tower house located in Clonony More townland c. 11.2km south-west of the nearest proposed turbine, T02. The ZTV demonstrates theoretical visibility of 11-15 turbines from the area of the monument. Given the distance of the tower house from the nearest proposed turbine, effects to its immediate setting will not occur. A change to the wider setting in which the monument is located is acknowledged, however, given the intervening distance and existing natural screening and topography the potential effect is considered to be Imperceptible.

Preservation Order 1/1980 Ringfort

While the description of the monument in the list of monuments subject to Preservation Orders notes it as a ringfort, the monument description in the HEV describes it as a stepped ring barrow. It is situated in the townland of Ballymurry in County Westmeath, c. 11.2km to the north-north-west of the nearest proposed turbine, T10. The ZTV demonstrates theoretical visibility of 11-15 proposed turbines from the location of the monument. Given the distance of the monument from the nearest proposed turbine, effects to its immediate setting will not occur. A change to the wider setting in which it is located is acknowledged, however, given the intervening distance and existing natural screening and topography the potential effect is considered to be Imperceptible.

Preservation Order 3/1980 Motte and Bailey

Also located in County Westmeath this monument subject to a Preservation Order (3/1980) is situated c. 12.5km to the north of the nearest proposed turbine, T10. The ZTV demonstrates no theoretical visibility of the proposed turbines from the summit of the monument and theoretical visibility of 11-15 proposed turbines from the south-eastern edge of same. The monument is, however, heavily wooded which is likely to screen any theoretical visibility. Given the distance of the monument from the nearest proposed turbine, effects to its immediate setting will not occur. A change to the wider setting in which it is located is acknowledged, however, given the intervening distance and existing natural screening and topography the potential effect is considered to be Imperceptible.

Preservation Order 3/1986 Motte, Castle & Earthworks

This monument comprises a motte and bailey (OF024-036003-) located in the townland of Rathlihen, Co. Offaly. It is situated c. 13km to the south-east of the nearest proposed turbine, T14. The ZTV demonstrates theoretical visibility of 1-5 proposed turbines from this location. Given the distance of the monument from the nearest proposed turbine, effects to its immediate setting will not occur. As 1-5 proposed turbines will theoretically be visible, a change to the wider setting in which it is located is acknowledged. Given the intervening distance and existing natural screening and topography, however, the potential effect is considered to be Imperceptible.

Preservation Order 1/2009 Ecclesiastical Enclosure Clonmacnoise

This monument which forms part of the ecclesiastical enclosure at Clonmacnoise is located c. 13km to the west-northwest of the nearest proposed turbine, T01. The ZTV demonstrates theoretical visibility of 11-15 proposed turbines from this location, however, it should be noted that no theoretical visibility is noted from the monastic complex within the enclosure (see above). Given the distance of ecclesiastical enclosure at Clonmacnoise from the nearest proposed turbine, effects to its immediate setting will not occur. A change to the wider setting in which the enclosure is located is acknowledged, however, given the intervening distance and existing natural screening the potential effect is considered to be Imperceptible.

The proposed onsite 220kV substation and Proposed Grid Connection infrastructure is located c. 8km north-east of the nearest National Monument, Gallen Abbey (NM 504) and c. 8.2km north of the nearest monument subject to a Preservation Order, Coole Castle. The distance of the proposed substation and Proposed Grid Connection infrastructure and intervening topography and natural screening is such that no potential visual effects to Gallen Abbey, Rahan Churches or Coole Castle are anticipated as a result of the proposed substation and Proposed Grid Connection. The remaining National Monuments and those subject to a Preservation Order are located at distances of between c. 10km-15km from Proposed Grid Connection infrastructure and it is not considered that potential visual effects to those monuments will occur.

The potential visual effects to National Monuments and those subject to a Preservation Order identified are Long Term, -Imperceptible and Negative, which is Not Significant. The distance of the National Monuments and those subject to Preservation Orders from the Proposed Project will mitigate potential visual effects. It is also noted that natural screening, boundaries, buildings and vegetation are not taken into account in the ZTV model and therefore potential visual effects will in reality be less severe. No mitigation measures are proposed.

Mitigation Measures

None proposed.

Residual Effect

The residual effect is considered to be Long-term, Imperceptible, and Negative, which is Not Significant.

Significance of Effects

The operational phase will not have any significant effects on national monuments. The overall significance of effects will be Not Significant.

13.3.4.3 Recorded Monuments

Identification of Effect

A total of one thousand and sixty-eight (1068) recorded monuments are located within 5km of the nearest proposed turbine. This number includes the 491 monuments located within the Proposed Project site with 577 monuments located outside the Proposed Project site within 5km of the nearest proposed turbine.

No recorded cultural heritage assets are located within the footprint of the proposed 220kV substation or to the Proposed Grid Connection infrastructure located under the existing OHL which is located in pasture c. 300m to the north-west of the proposed substation location. The nearest recorded monument comprises a class 2 togher OF007-343— which is situated c. 270m north-west of the proposed 220kV substation and over 100m from the nearest proposed new steel mast. It comprises a low-visibility monument which no longer has any above-ground expression.

The ZTV shows that the majority of monuments located within 5km of the nearest proposed turbine are located in areas where 11-15 turbines will theoretically be visible. Both the distance to the nearest turbine and the number of turbines visible from cultural heritage assets are used to arrive at a level of potential effect on setting (see Table 13-4). This is not utilised, however, for those monuments that are considered to have no or very low visibility in the landscape such as the hundreds of peatland monuments located within and surrounding the Proposed Project site (see below).

Potential effects on setting as detailed in Table 13-11 below are based on a theoretical precautionary scenario in that natural screening, boundaries, buildings and vegetation are not taken into account in the ZTV model. In reality the effect will be reduced since the ZTV model does not take natural screening and buildings into consideration which will alleviate if not remove the effect on setting altogether. Furthermore, many of these monuments are not readily discernible in the landscape which further ameliorates effects on setting.

Recorded monuments within the Proposed Project site

A lack of visibility or discernible presence in the landscape is particularly relevant for the 491 recorded monuments located within the Proposed Project site. The vast majority of these monuments are considered to have low or no visibility in the landscape as they comprise sites that were detected during the 1993-4 Peatland Survey and which at that time were located either on the bog surface or were visible in drain sections, being partially sub-surface. Peatland structures account for the largest number of recorded monuments within the site with 371 present. They comprise wood found in peat, which has been deliberately deposited or processed and can vary from single pieces to deposits without a clear form or orientation, but which are indicative of an archaeological structure. Given the generally ephemeral nature of these sites, it is considered unlikely that they have any discernible visibility. While other monument types such as toghers and platforms would be more substantial in nature they are also considered low visibility with no observable presence within the landscape other than their immediate setting. It is also noteworthy that industrial peat production and associated activities which continued at the site until 2020 is considered to have resulted in the removal of the vast majority of monuments within the Proposed Project site. This is substantiated by the walk-over survey carried out for the assessment which did not note any visible trace of recorded monuments where those locations were inspected. Taking into consideration the above, while a change to the setting in which the monuments are located will occur as a result of the Proposed Project this is considered to be Long-Term, Negative, and Imperceptible, which is Not Significant.

In the case of the gravel/stone trackway OF007-350— which comprises an extant monument and is still discernible within the site it is also considered to be a low-visibility monument and is not visible in the landscape outside of its immediate environs. There is no discernible inter-visibility between the trackway and the 17th century house (OF007-065—) located to the west outside the Proposed Project site

and the potential connectivity between these monuments will continue despite the introduction of the Proposed Project. The proposed new road to T10 and T11 will be floated over the gravel/stone trackway OF007-350— which will result in a change to the immediate setting of the monument at both locations. While the road is an extant monument it is regarded as low visibility. The potential visual effect to its immediate setting where the proposed new road will cross same is regarded as Negative, Permanent and Slight. A change to its wider setting will also occur as a result of the Proposed Project, however, this is considered to be Negative, Long Term and Not Significant.

Recorded monuments within 5km of the nearest proposed turbine outside the Proposed Project site

577 recorded monuments are located within 5km of the nearest proposed turbine outside the Proposed Project site. Of this number 265 comprise sites located within a peatland environment and consist of Roads (Class 1, 2 and 3 toghers and a road/trackway), Structures – Peatland and Post row – Peatland. The majority are located in Derrynagun and Curragalassa Bogs to the south-east of the Proposed Project site and were identified during previous Peatland Surveys carried out for BnM. While they are located in areas in which 11-15 turbines will theoretically be visible these monuments may be regarded as having no or low visibility which reduces or negates potential visual effects. In this regard while a change to the wider setting in which these monuments are located will occur as a result of the Proposed Project this is considered to be Imperceptible, Negative, and Long-Term, which is Not Significant.

An additional 152 recorded monuments within 5km of the nearest proposed turbine comprise the cross slabs and inscribed stones at Gallen Abbey c. 4km to the south-west of the nearest proposed turbine. The ZTV demonstrates theoretical visibility of 11-15 proposed turbines from this location. A photowire captured from north of the cemetery at Gallen (PWVP-N), however, illustrates that the proposed turbines are located beyond a dense stretch of forestry and are not visible from this location. It is considered that vegetative screening will still occur during winter months given the density of the forestry. In this regard, no potential visual effects to these monuments are concluded.

The potential visual effect on the remaining recorded monuments outside the Proposed Project site and excluding those peatland sites and cross slabs/stones at Gallen Abbey discussed above are listed in Table 13-11 below. The theoretical significance of effects on setting ranges from Not Significant to Moderate, Negative, Long term, which is Not Significant. No potential visual effect is concluded for monuments located where no turbines will theoretically be visible.

Lemanaghan Monastic Complex

The complex of monuments in Lemanaghan townland which comprise the early monastic site dedicated to St Manchán is located between c. 1km-1.2km south-west of the nearest proposed turbine, T14, and a similar distance south-east of T5. Given its archaeological, architectural and cultural merit the complex as a whole is regarded as being of high archaeological sensitivity. It is located in an area in which the ZTV demonstrates theoretical visibility of 11-15 proposed turbines. VP13 was captured from within the Lemanaghan Monastic site which demonstrates that a total of ten (10) turbines are either partially or fully visible from this viewpoint, with the upper portions of the turbines appearing above intervening vegetation or built infrastructure. VP 14 which was captured from the Hermitage (St Mella's Cell OF015-004006-) demonstrates how the mature vegetation provides a sense of enclosure and partially screens views of the proposed turbines. It should also be noted that VP14 was captured in winter when some trees are not in leaf and vegetative cover is less extensive. Using the distance to the nearest turbine and the number of turbines visible from the cultural heritage asset to arrive at a level of potential effect on setting (see Table 13-4) a Moderate, Negative, Long Term effect, which is Not Significant to the wider setting of monastic complex is identified. It should be noted, however, that the immediate setting of the complex will not be affected. Furthermore, the presence of existing vegetative screening both around the monastic site and along the intervening public road will reduce potential visual effects including during the winter months as demonstrated by VP14.

A comprehensive review of the historical, archaeological and landscape context of the Monastic Complex at Lemanaghan and any potentially related monuments in its surrounds, including within the

Proposed Project site, was carried out as part of this assessment (See Appendix 13-5). The appendix provides a detailed overview of the Monastic Complex, its potential connectivity with other monuments such as toghers and roadways including the Slí Mhór, and the visitor experience at the complex, and should be read in conjunction with this Chapter and Chapter 14: Landscape and Visual. As detailed in Appendix 13-5 any physical connection that may once have existed between toghers in Lemanaghan Bog to the north (within the Proposed Project site) and in Derrynagun Bog to the east-north-east (OF015-084—) (outside the Proposed Project site) and Lemanaghan Monastic Complex is no longer present. Such connectivity, if it once existed, pertains to the time period in which the monastic complex was still functioning as a place of worship and pilgrimage. The landscape around the monastic complex and within Lemanaghan Bog has been significantly altered since this time. Furthermore, there are currently no formal walking routes through Lemanaghan Bog which extend to the monastic complex. Similarly, a walking route along the togher in Derrynagun Bog to the monastic site is not in existence.

As noted in Section 13.2.2.1.6 above, there is no known physical manifestation of the Slí Mór or designated walking route along same which currently leads to Lemanaghan Monastic Complex, or which extends through Lemanaghan Bog to the Monastic Site. A possible route for the establishment of the 'Pilgrim's Path' to Lemanaghan Monastic Complex was proposed in 1999 and incorporated the togher OF015-084— through Derrynagun Bog. A number of significant difficulties associated with this potential route were identified in the Conservation Plan for Lemanaghan (2007, 48) and led to an alternative route being proposed which did not incorporate the trackway or St Mella's Cell. Subsequently, the Pilgrim's Path to Lemanaghan has not been formally established and no walking route to the monastic site either through Lemanaghan Bog or through Derrynagun Bog currently exists.

Furthermore, as described in Chapter 14, the 'Pilgrim's Road to Clonmacnoise' is a 24.4km walking route extending from *"Ballycumber to Clonmacnoise monastic site"* (DiscoverIreland.ie). This trail is located to the north of the Proposed Project site, c. 1.6km from the nearest proposed turbine.

The potential Moderate effect on the wider setting of Lemanaghan Monastic Complex as identified here is reiterated in Appendix 13-5 and accords with the findings of Chapter 14: Landscape and Visual.

Table 13-11: Table of potential effects on setting of recorded monuments within 5km of the nearest proposed turbine outside the Proposed Project site and excluding Peatland sites and cross slabs and stones at Gallen Abbey.

MAP ID	SMR	MONUMENT TYPE	TOWNLAND	Nearest Turbine	Distance (m)	Theoretical Significance of Effect
307	OF007-065—	House - 17th century	TUMBEAGH	T10	745	Moderate
309	OF015-003—	Enclosure	LEMANAGHAN	T05	749	Moderate
377	OF015-002—	Enclosure	LISDERMOT	T01	884	Moderate
455	OF007-037—	House - fortified house	CASTLEARMSTRONG	T15	1027	Moderate
485	OF007-043—	Ringfort - rath	TUMBEAGH	T10	1095	Moderate
517	OF015-004001-	Castle - tower house	LEMANAGHAN	T05	1166	Moderate
518	OF015-004008-	Ecclesiastical enclosure	LEMANAGHAN	T14	1167	Moderate
519	OF015-004002-	Sheela-na-gig	LEMANAGHAN	T14	1169	Moderate
521	OF007-042—	Ringfort - cashel	KILNAGOOOLNY	T08	1182	Moderate
522	OF015-004020-	Cross-slab (present location)	LEMANAGHAN	T14	1182	Moderate
523	OF015-004021-	Cross-slab	LEMANAGHAN	T14	1184	Moderate
524	OF015-004025-	Cross-slab	LEMANAGHAN	T14	1184	Moderate
525	OF015-004029-	Cross-slab	LEMANAGHAN	T14	1184	Moderate

526	OF015-004027-	Cross-slab	LEMANAGHAN	T14	1184	Moderate
527	OF015-004017-	Cross-slab	LEMANAGHAN	T14	1184	Moderate
528	OF015-004022-	Cross-slab	LEMANAGHAN	T14	1184	Moderate
529	OF015-004024-	Cross-slab	LEMANAGHAN	T14	1184	Moderate
530	OF015-004031-	Cross-slab	LEMANAGHAN	T14	1184	Moderate
531	OF015-004026-	Cross-slab	LEMANAGHAN	T14	1184	Moderate
532	OF015-004030-	Cross-slab	LEMANAGHAN	T14	1184	Moderate
533	OF015-004032-	Graveslab	LEMANAGHAN	T14	1184	Moderate
534	OF015-004028-	Cross-slab	LEMANAGHAN	T14	1184	Moderate
535	OF015-004010-	Font	LEMANAGHAN	T14	1184	Moderate
536	OF015-004016-	Cross-slab	LEMANAGHAN	T14	1184	Moderate
540	OF007-032—	Ringfort - cashel	KILLAGHINTOBER	T11	1190	Moderate
542	OF015-004—	Settlement deserted - medieval	LEMANAGHAN	T14	1194	Moderate
545	OF015-004012-	Bullaun stone	LEMANAGHAN	T14	1197	Moderate
549	OF015-004009-	Building	LEMANAGHAN	T14	1212	Moderate
553	OF015-004018-	Cross-slab	LEMANAGHAN	T14	1216	Moderate

557	OF015-004003-	Church	LEMANAGHAN	T14	1221	Moderate
558	OF015-004019-	Cross-slab	LEMANAGHAN	T14	1221	Moderate
560	OF015-004015-	Cross-slab	LEMANAGHAN	T14	1222	Moderate
561	OF015-004034-	Cross-slab	LEMANAGHAN	T14	1222	Moderate
562	OF015-004033-	Cross-inscribed stone	LEMANAGHAN	T14	1222	Moderate
566	OF015-004004-	Graveyard	LEMANAGHAN	T14	1229	Moderate
567	OF015-004007-	Ritual site - holy well	LEMANAGHAN	T14	1231	Moderate
569	OF015-004013-	Bullaun stone	LEMANAGHAN	T14	1233	Moderate
572	OF015-004005-	Decorated stone	LEMANAGHAN	T14	1235	Moderate
576	OF007-038—	Ritual site - holy well	CASTLEARMSTRONG	T15	1241	Moderate
583	OF015-004011-	Road - road/trackway	LEMANAGHAN	T14	1249	Moderate
595	OF015-004006-	Hermitage	LEMANAGHAN	T14	1263	Moderate
599	OF015-004014-	Ecclesiastical enclosure	LEMANAGHAN	T14	1269	Moderate
674	OF015-497—	Enclosure	LEMANAGHAN	T14	1347	Moderate
733	OF007-034—	Ringfort - rath	KILLAGHINTOBER	T11	1411	Moderate
741	OF007-033—	Burial ground	KILLAGHINTOBER	T11	1426	Moderate

778	OF007-047—	Designed landscape - tree-ring	STRADUFF	T01	1697	Moderate
779	OF015-495—	Enclosure	KILCOLGAN MORE	T03	1712	Moderate
780	OF015-010—	Enclosure	BALLYLIN	T02	1768	Moderate
781	OF015-012—	Enclosure	KILCOLGAN MORE	T03	1782	Moderate
782	OF007-030—	Ringfort - rath	KILNAGARNAGH	T10	1789	Moderate
783	OF007-046—	Ringfort - cashel	STRADUFF	T01	1806	Moderate
784	OF015-001—	Ringfort - rath	LISDERMOT	T01	1851	Moderate
785	OF015-011004-	Architectural fragment	KILCOLGAN MORE	T03	1859	Moderate
786	OF015-011003-	Well	KILCOLGAN MORE	T03	1873	Moderate
787	OF015-496—	Enclosure	KILCOLGAN MORE	T03	1877	Moderate
788	OF015-011002-	Bawn	KILCOLGAN MORE	T03	1878	Moderate
789	OF007-045—	Enclosure	STRADUFF	T01	1882	Moderate
790	OF015-011—	House - fortified house	KILCOLGAN MORE	T03	1893	Moderate
791	OF007-035—	Ritual site - holy well	PARKAREE OR BOHERFADDA	T15	1905	Moderate
792	OF007-061—	Castle - unclassified	KILNAGARNAGH	T10	1945	Moderate
793	OF015-009—	Burial ground	BALLYLIN	T02	1976	Moderate

794	OF015-008003-	Wall monument (present location)	BALLYLIN	T01	1984	Moderate
795	OF015-008002-	Wall monument (present location)	BALLYLIN	T01	1984	Moderate
797	OF007-029—	Ringfort - rath	KILNAGARNAGH	T10	2007	Slight
798	OF015-008001-	Architectural feature	BALLYLIN	T01	2013	Slight
799	OF015-008005-	Architectural fragment	BALLYLIN	T01	2013	Slight
800	OF015-008004-	Wall monument (present location)	BALLYLIN	T01	2013	Slight
801	OF014-011—	Ringfort - rath	BALLYLIN	T01	2082	Slight
802	OF014-012—	Enclosure	BALLYLIN	T01	2143	Slight
803	OF007-044—	Ringfort - cashel	GLEBE (Garrycastle By., Doon ED)	T01	2169	Slight
804	OF007-011—	Enclosure	COOLDORRAGH (Garrycastle By.)	T10	2226	Slight
805	OF007-041—	Burial ground	RASHINAGH	T08	2289	Slight
806	OF007-013—	Ringfort - rath	BELLAIR OR BALLYARD	T11	2355	Slight
807	OF007-014—	Ringfort - rath	BELLAIR OR BALLYARD	T11	2417	Slight
808	OF007-009—	Enclosure	COOLDORRAGH (Garrycastle By.)	T10	2428	Slight
809	OF007-036—	Earthwork	PARKAREE OR BOHERFADDA	T15	2432	Slight

810	OF007-010—	Enclosure	COOLDORRAGH (Garrycastle By.)	T10	2437	Slight
811	OF007-016—	Crannog	SPRINGPARK	T15	2441	Slight
813	OF007-050—	Crannog	CASTLETOWN (Ballycowan By.)	T15	2604	Slight
814	OF007-015—	Designed landscape - tree-ring	BELLAIR OR BALLYARD	T11	2780	Slight
815	OF007-060—	Castle - unclassified	RASHINAGH	T10	2818	Slight
817	OF007-027—	Ringfort - rath	RASHINAGH	T10	2848	Slight
818	OF007-012—	Enclosure	BELLAIR OR BALLYARD	T11	2848	Slight
819	OF007-019—	Ringfort - rath	MOOROCK	T15	2950	Slight
820	OF007-059—	Castle - unclassified	BELLAIR OR BALLYARD	T11	2980	Slight
821	OF006-069001-	Enclosure	COR MORE AND COR BEG	T01	3007	Not Significant
822	OF015-023—	Burial mound	KINCORA	T03	3007	Slight
824	OF007-026—	Enclosure	CASTLEREAGH	T10	3043	Slight
825	OF006-069002-	Enclosure	COR MORE AND COR BEG	T01	3048	None
827	OF015-005—	Enclosure	CASTLETOWN (Ballycowan By.)	T15	3074	Slight
828	OF007-018—	Ringfort - rath	MOOROCK	T15	3127	Slight
829	OF014-008—	Ritual site - holy well	ENDRIM	T01	3141	Slight

830	OF015-013—	Ringfort - rath	VICARSTOWN	T03	3171	Slight
832	OF007-025—	Enclosure	CASTLEREAGH	T10	3225	Slight
833	OF006-053—	Church	GLEBE (Garrycastle By., Doon ED)	T01	3256	None
835	OF007-024—	Enclosure	CASTLEREAGH	T10	3299	Slight
840	OF007-023—	Enclosure	CASTLEREAGH	T10	3425	Slight
841	OF007-017—	Barrow - ring-barrow	MOOROCK	T15	3491	Slight
842	OF014-007—	Ringfort - rath	ENDRIM	T01	3530	Slight
843	OF007-022—	Moated site	CASTLEREAGH	T10	3533	Slight
844	OF014-046—	Castle - unclassified	KINCORA	T03	3589	Slight
847	OF014-006—	Enclosure	ENDRIM	T01	3704	Slight
848	OF006-068—	Enclosure	ENDRIM	T01	3720	Slight
849	OF007-039—	Castle - unclassified	BALLYCUMBER	T15	3862	Slight
850	OF014-054—	Enclosure	KINCORA	T03	3862	Slight
851	OF014-031005-	Wall monument	KINCORA	T03	3870	Slight
852	OF014-031006-	Wall monument	KINCORA	T03	3870	Slight
853	OF014-031002-	Church	KINCORA	T03	3870	Slight

854	OF014-031004-	Wall monument	KINCORA	T03	3870	Slight
855	OF007-051—	Castle - unclassified	CASTLETOWN (Ballycowan By.)	T15	3876	Slight
856	OF007-020—	Ringfort - unclassified	CRANASALLAGH	T15	3880	Slight
857	OF014-031001-	Graveyard	KINCORA	T03	3882	Slight
858	OF007-051001-	Bawn	CASTLETOWN (Ballycowan By.)	T15	3904	Slight
859	OF015-007—	Enclosure	POLLAGH	T15	3911	Slight
860	OF007-052001-	Bullaun stone	CASTLETOWN (Ballycowan By.)	T15	3940	Slight
861	OF007-052003-	Architectural fragment	CASTLETOWN (Ballycowan By.)	T15	3940	Slight
862	OF007-052002-	Bullaun stone	CASTLETOWN (Ballycowan By.)	T15	3941	Slight
863	OF007-052—	Burial ground	CASTLETOWN (Ballycowan By.)	T15	3941	Slight
864	OF007-040—	Castle - motte	BALLYCUMBER	T15	3944	Slight
865	OF015-014—	Enclosure	LEA MORE	T14	3959	Slight
867	OF015-016—	Earthwork	WHEERY	T03	3962	Slight
868	OF014-032—	Enclosure	WHEERY	T03	3965	Slight
869	OF014-010001-	Burial ground	ENDRIM	T01	3989	Slight
870	OF014-010002-	Enclosure	ENDRIM	T01	3991	Slight

871	OF015-017—	Castle - tower house	COOLE (Garrycastle By.)	T03	4009	Not Significant
872	OF007-008—	Enclosure	CORRACULLIN	T10	4030	Not Significant
901	OF014-029007-	Mound	GALLEN	T03	4043	Not Significant
917	OF014-029005-	Bullaun stone	GALLEN	T03	4049	Not Significant
1012	OF014-040002-	Ecclesiastical enclosure	WHEERY	T03	4077	Not Significant
1013	OF014-040001-	Church	WHEERY	T03	4112	Not Significant
1019	OF014-029002-	Graveyard	GALLEN	T03	4168	Not Significant
1020	OF014-029004-	Ritual site - holy tree/bush	GALLEN	T03	4172	Not Significant
1021	OF014-029001-	Religious house - Augustinian canons	GALLEN	T03	4175	Not Significant
1024	OF006-052—	Enclosure	GLEBE (Garrycastle By., Doon ED)	T01	4215	Not Significant
1025	OF007-006001-	Ringfort - cashel	CORRACULLIN	T10	4232	Not Significant
1026	OF014-009—	Enclosure	ENDRIM	T01	4315	None
1027	OF014-030—	Enclosure	KINCORA	T03	4344	Not Significant
1028	OF006-032001-	Castle - tower house	LACKAGH MORE	T10	4345	Not Significant
1029	OF006-032003-	Bawn	LACKAGH MORE	T10	4352	Not Significant

1030	OF015-006—	Mound	DEERPARK (Ballycowan By.)	T15	4369	Not Significant
1031	OF014-005—	Enclosure	ENDRIM	T01	4388	Not Significant
1032	OF007-001—	Enclosure	CORRACULLIN	T10	4407	Not Significant
1033	OF006-051—	Enclosure	GLEBE (Garrycastle By., Clonmacnoise ED)	T10	4446	Not Significant
1034	OF014-028—	Enclosure	GALLEN	T03	4462	Not Significant
1035	OF007-005—	Ringfort - rath	ESKER	T10	4464	Not Significant
1038	OF006-031004-	Bawn	ESKER	T10	4493	Not Significant
1039	OF006-031002-	Sheela-na-gig	ESKER	T10	4494	Not Significant
1040	OF006-031001-	Castle - tower house	ESKER	T10	4499	Not Significant
1044	OF016-001—	Enclosure	DEERPARK (Ballycowan By.)	T15	4536	Not Significant
1045	OF008-032—	Ringfort - rath	BALLYBRUNCULLIN	T15	4566	Not Significant
1046	OF006-031003-	Earthwork	ESKER	T10	4585	Not Significant
1047	OF006-067—	Enclosure	ENDRIM	T01	4598	None
1049	OF007-004—	Enclosure	ESKER	T10	4630	Not Significant
1050	OF008-034—	Ringfort - rath	KILPATRICK	T15	4642	Not Significant
1052	OF006-050—	Ringfort - rath	LACKAGH MORE	T10	4654	Not Significant

1053	OF008-031—	Ringfort - unclassified	BALLYBRUNCULLIN	T15	4668	Not Significant
1054	OF008-033—	Enclosure	BALLYBRUNCULLIN	T15	4739	Not Significant
1055	WM036-041—	Enclosure	CLONYDONNIN	T10	4794	Not Significant
1056	OF006-030—	Ringfort - rath	DOON DEMESNE	T10	4805	Not Significant
1057	WM036-042001-	Church	CLONALTRA WEST	T10	4882	Not Significant
1058	WM036-042004-	Ecclesiastical enclosure	CLONALTRA WEST	T10	4882	Not Significant
1059	WM036-042006-	Graveyard	CLONALTRA WEST	T10	4882	Not Significant
1060	OF006-027—	Ringfort - unclassified	ESKER	T10	4887	Not Significant
1061	OF008-035—	Ringfort - rath	BALLINA (Ballycowan By.)	T15	4905	Not Significant
1062	WM036-040—	Ringfort - rath	CLONYDONNIN	T10	4915	Not Significant
1063	WM036-042003-	Bullaun stone	CLONALTRA WEST	T10	4925	Not Significant
1064	WM036-042007-	Cross-slab	CLONALTRA WEST	T10	4925	Not Significant
1065	WM036-042002-	Cross-slab	CLONALTRA WEST	T10	4925	Not Significant
1066	OF006-049—	Ringfort - rath	LACKAGH BEG	T10	4939	Not Significant
1067	OF007-021—	Enclosure	WILTON	T15	4967	Not Significant
1068	OF014-004—	Enclosure	ENDRIM	T01	4971	None

Mitigation Measures

No mitigation measures proposed.

Residual Effect

The residual effects range from Imperceptible to Moderate as outlined in Table 13-11 of Potential Effects.

Significance of Effects

The operational phase will not have any significant effects on recorded monuments. The overall significance of effects is Not Significant.

13.3.4.4 Previously Unrecorded Monuments

Identification of Effect

No previously unrecorded archaeological monuments, stray finds or potential peatland structures were noted within the Proposed Project site during the walk-over survey. In this regard no potential visual effects to the setting of such finds or sites are identified.

13.3.4.5 Sub-surface Archaeology

Potential visual effects to sub-surface archaeology which may exist within the Site are negated by the sub-surface nature of such features that do not have any above-ground elements on which the Proposed Project will have a visual effect.

13.3.4.6 Archaeological Landscapes

The Proposed Project is not located in or immediately adjacent to areas which have been designated as Archaeological Landscapes. Potential visual effects to any such landscapes will therefore not occur.

13.3.4.7 Protected Structures

Identification of Effect

No Protected Structures are located within the Proposed Project site. A total of 47 Protected Structures are located within 5km of the nearest proposed turbine, at least 17 of which are located in Ferbane village to the south-west of the Proposed Project site. The nearest Protected Structures comprise a thatched house (11-06) at Killaghintober c. 900m north of the nearest proposed turbine, T11. At a distance of c. 1km from T15 is the fortified house at Castlearmstrong (11-9) which is also a recorded monument (OF007-037—).

No Protected Structures are located within the footprint of or in close proximity to the Proposed Grid Connection infrastructure. The nearest Protected Structure is located c. 1.5km to the south-east of the proposed 220kV substation and also comprises the thatched cottage (RPS Ref. 11-06, NIAH Reg. 14907004) in the townland of Killaghintober. It is also the closest structure to the Proposed Grid Connection infrastructure and is situated between c. 1.9km to the south-east of same. Given the distance of the proposed substation and Proposed Grid Connection infrastructure from protected structures within the wider landscape and the intervening topography and natural screening no potential visual effects as a result of the proposed substation and Grid Connection are anticipated.

Both the distance to the nearest proposed turbine and the number of turbines theoretically visible from cultural heritage assets are used to arrive at a level of potential effect on setting (see Table 13-4). The theoretical significance of effects to Protected Structures located within 5km of the nearest proposed turbine is listed in Table 13-12 below. The ZTV demonstrates theoretical visibility of the proposed turbines from all of the Protected Structures located within 5km. A photowire (VP36) captured from the east side of Ferbane village, however, shows how existing buildings and intervening vegetation will screen the proposed turbines from view. Similarly, Photomontage 03 created from Pollagh Bridge demonstrates visibility of the proposed turbines from this location which is adjacent to Saint Mary's Roman Catholic Church (RPS. Ref. 21-5). The church is located c. 3.4km from the nearest proposed turbine, T14. Photomontage 07 created from St Manchán's cemetery in Boher demonstrates visibility of T15 and T14 from this location which is adjacent to St Manchán's Church (RPS Ref. 11-3). The church is situated c. 1.6km from the nearest proposed turbine, T15. It also illustrates how existing natural screening will screen some turbines from view.

The immediate setting of the Protected Structures within 5km will not be affected, however, a change to the wider setting within which they are located is acknowledged and ranges from Not Significant to Moderate, Negative, Long Term, which is Not Significant. The distance of Protected Structures from the proposed turbines will mitigate some potential visual effects. Additionally, many of these structures are located on private lands which are not formally accessible to the public. It is also noted that natural screening, boundaries, buildings and vegetation were not taken into consideration in the ZTV and will also potentially screen some visual effects.

Table 13-12: Table of potential effects on setting of Protected Structures within 5km of the nearest proposed turbine.

RPS ID	NIAH REG.	STRUCTURE	TURBINE	DISTANCE TO TURBINE (m)	Theoretical Significance of Effect
11-6	14907004	Thatched House	T11	901	Moderate
11-9		Castletown Grogan	T15	1001	Moderate
21-4	14915003	Cast iron post box	T14	1195	Moderate
11-4	14907002	Cast -iron post box	T15	1625	Moderate
11-3	14907001	Saint Manchin's Roman Catholic Church	T15	1680	Moderate
21-2	14915001	Ballylin House	T01	1985	Moderate
21-1	14914005	Ballylin House	T01	2354	Slight
21-3	14915002	Glebe House	T03	2408	Slight
11-2	14801004	Lis National School	T15	2442	Slight
11-1	14801003	Lis Church of Ireland Church	T15	2467	Slight
12-3	14801005	Ballycumber	T15	2881	Slight
21-7		Lemanaghan Bridge	T14	2932	Slight
11-7	14907005	Bellair House	T11	2985	Slight

RPS ID	NIAH REG.	STRUCTURE	TURBINE	DISTANCE TO TURBINE (m)	Theoretical Significance of Effect
11-5	14907003	Moorrock Bridge	T15	3267	Slight
21-5	14915005	Saint Mary's Roman Catholic Church	T14	3437	Slight
21-6		Aghaboy Bridge	T03	3457	Slight
12-69		Twickenham House	T15	3660	Slight
12-1	14801001	Ballycumber Railway Station	T15	3677	Slight
12-2	14801002	Prospect Bridge	T15	3709	Slight
12-68		Barracks	T15	3728	Slight
12-4	14801008	John Gavin Shop & House	T15	3731	Slight
20-12	14806013	Ulster Bank	T02	3740	Slight
20-14	14806015	Former Primary School	T02	3740	Slight
20-11	14806011	K. Egan	T02	3759	Slight
20-13	14806014	Church of Ireland	T02	3762	Slight
12-5	14801009	Ballycumber Bridge	T15	3786	Slight
31-2	14915004	Derry Bridge	T03	3795	Slight
20-19		Hennessys Pub	T02	3801	Slight
20-10	14806010	Main Street, Ferbane	T02	3805	Slight
20-9	14806009	Grennan	T02	3805	Slight
20-8	14806008	Fleming	T02	3826	Slight
20-7	14806007	James Hamill	T02	3839	Slight
20-6	14806006	J. Hiney	T02	3852	Slight
11-8		Moor Rock Lodge	T15	3855	Slight

RPS ID	NIAH REG.	STRUCTURE	TURBINE	DISTANCE TO TURBINE (m)	Theoretical Significance of Effect
20-5	14806005	Maddens Drapery Shop	T02	3861	Slight
12-6	14801010	Ballycumber House	T15	3862	Slight
20-1	14806001	Ferbane Bridge	T03	3899	Slight
20-2	14806002	Saint Mary's Parochial Hall	T03	3918	Slight
20-15	14806016	Immaculate Conception Roman Catholic Church	T02	3922	Slight
12-7	14801012	Ballycumber House	T15	3943	Slight
20-3	14806003	Gallen Lodge	T03	3952	Slight
20-16	14806017	Parochial House	T02	3975	Slight
20-17	14806018	Ferbane Area Office	T03	4111	Not Significant
20-18	14806019	Gallen Priory	T03	4134	Not Significant
12-65	14908008	House	T15	4468	Not Significant
12-66	14908009	Saint Carthage's Roman Catholic Church	T15	4681	Not Significant

Mitigation Measures

No mitigation measures proposed.

Residual Effect

The residual effects will be the same as those identified in the table of Potential Effects and as discussed above.

Significance of Effects

The overall significance of effects is Not Significant.

13.3.4.8 NIAH Structures and Historic Gardens

Identification of Effect

No NIAH structures or historic gardens are located within the Proposed Project site. A total of 42 NIAH structures are located within 5km of the nearest proposed turbine. At least 18 of the structures are located in Ferbane village to the south-west of the Proposed Project site. The ZTV demonstrates theoretical visibility of 11-15 proposed turbines from all of the structures within 5km. As noted above, a photowire (VP36) created from the east side of Ferbane village shows how existing buildings and intervening vegetation will screen the turbines from view. Similarly, Photomontage 03 created from Pollagh Bridge demonstrates visibility of the proposed turbines from this location which is adjacent to Saint Mary's Roman Catholic Church (Reg. 14915005). The church is located c. 3.4km from the nearest proposed turbine, T14. Photomontage 07 created from St Manchán's cemetery in Boher demonstrates visibility of T15 and T14 from this location which is adjacent to St Manchán's Church (Reg. 14907001). The church is situated c. 1.6km from the nearest proposed turbine, T15. It also illustrates how existing natural screening will screen some turbines from view. The nearest NIAH structure comprises the thatched house at Killaghintoher (Reg. 14907004) which is also a Protected Structure (Ref. 11-06) and is situated c. 900m from the nearest proposed turbine, T11.

No NIAH structures or historic gardens are located within the footprint of the proposed 220kV substation or Proposed Grid Connection infrastructure. The nearest NIAH structure is located c. 1.5km to the south-east of the proposed 220kV substation and comprises the thatched cottage (RPS Ref. 11-06, NIAH Reg. 14907004) in the townland of Killaghintoher. It is also the closest structure to the Proposed Grid Connection infrastructure located under the existing OHL and is situated c. 1.9km to the south-east of same.

Twelve historic gardens are located within 5km of the nearest proposed turbine. The nearest historic garden is that associated with Castlearmstrong which is located just outside the Proposed Project boundary. The ZTV demonstrates theoretical visibility of 11-15 proposed turbines from 10 of the 12 historic gardens.

Given the distance of the proposed substation and Proposed Grid Connection infrastructure from NIAH structures within the wider landscape and the intervening topography and natural screening no potential visual effects to that resource as a result of the proposed substation and Proposed Grid Connection are anticipated.

Both the distance to the nearest proposed turbine and the number of turbines theoretically visible from cultural heritage assets are used to arrive at a level of potential effect on setting (see Table 13-4). The theoretical significance of effects to NIAH structures located within 5km of the nearest proposed turbine is listed in Table 13-13 while the theoretical significance of effects on the setting of historic gardens is listed in Table 13-14 and ranges from Moderate to Not Significant, Negative, Long Term, which is Not Significant. In regard to the historic gardens, it should be noted that many of these sites may not retain their original features and by their very nature are not readily visible in the wider landscape. Potential visual effects as identified in the table below will therefore be mitigated by distance to the proposed turbines, intervening natural screening and the low visibility nature of the gardens.

Table 13-13: Table of potential effects on setting of NIAH structures within 5km of the nearest proposed turbine.

NIAH REG.	TYPE.	NAME	TOWNLAND	DATE	TURBINE	DISTANCE TO TURBINE (m)	Theoretical Significance of Effect
14907004	farmhouse		KILLAGHINTOBER	1780-1820	T11	896	Moderate

NIAH REG.	TYPE.	NAME	TOWNLAND	DATE	TURBINE	DISTANCE TO TURBINE (m)	Theoretical Significance of Effect
14915 003	post box		LEMANAGHAN	1900-1910	T14	1187	Moderate
14907 002	post box		CASTLETOWN (BC. BY.)	1910-1950	T15	1628	Moderate
14907 001	church/chapel	Saint Manchin's Catholic Church	PARKAREE OR BOHERFADDA	1850-1870	T15	1678	Moderate
14915 001	outbuilding	Ballylin House	BALLYLIN	1810-1840	T01	1994	Moderate
14914 005	gate lodge	Ballylin House	BALLYLIN	1810-1850	T01	2359	Slight
14915 002	rectory/glebe/vicarage/curate's house	The Rectory	GLEBE (GA. BY.) FERBANE ED	1800-1840	T03	2405	Slight
14801 004	school	Liss National School	GROGAN AND CORROE	1820-1860	T15	2442	Slight
14801 003	church/chapel	Liss Church (Lemanaghan)	GROGAN AND CORROE	1810-1830	T15	2467	Slight
14801 005	house	A. Flynn	GROGAN AND CORROE	1860-1900	T15	2879	Slight
14907 005	country house	Bellair House	BELLAIR OR BALLYARD	1805-1810	T11	2980	Slight
14907 003	bridge	Moorock Bridge	MOOROCK	1850-1870	T15	3265	Slight
14915 005	church/chapel	Saint Mary's Catholic Church	POLLAGH	1900-1920	T14	3436	Slight
14801 001	railway station	Ballycumber Railway Station	CRANASALLAGH	1860-1865	T15	3677	Slight
14801 002	bridge	Prospect Bridge	CRANASALLAGH	1855-1865	T15	3707	Slight

NIAH REG.	TYPE.	NAME	TOWNLAND	DATE	TURBINE	DISTANCE TO TURBINE (m)	Theoretical Significance of Effect
14806 013	bank/financial institution	Ulster Bank	FERBANE	1880-1920	T02	3740	Slight
14801 008	house	John Gavin or Corner House	BALLYCUMBER	1870-1890	T15	3740	Slight
14806 015	school	Ferbane Church (Wheery or Killagally)	FERBANE	1830-1850	T02	3741	Slight
14806 012	house		FERBANE	1840-1880	T02	3753	Slight
14806 011	house	K. Egan	FERBANE	1915-1920	T02	3761	Slight
14806 014	church/chapel	Ferbane Church (Wheery or Killagally)	FERBANE	1800-1840	T02	3762	Slight
14801 009	bridge	Ballycumber Bridge	BALLYBRUNCULLIN, BALLYCUMBER, BOHERNAGRISNA	1840-1860	T15	3787	Slight
14915 004	bridge	Derry Bridge	DERRIES (GA. BY.)	1800-1805	T03	3795	Slight
14806 010	house		FERBANE	1830-1850	T02	3805	Slight
14806 009	house	Grennan	FERBANE	1860-1900	T02	3808	Slight
14806 008	house	Fleming	FERBANE	1840-1880	T02	3827	Slight
14806 007	house		FERBANE	1880-1920	T02	3839	Slight
14806 006	house		FERBANE	1850-1890	T02	3851	Slight

NIAH REG.	TYPE.	NAME	TOWNLAND	DATE	TURBINE	DISTANCE TO TURBINE (m)	Theoretical Significance of Effect
14806 004	convent/nunnery	Saint Joseph's Convent	FERBANE	1860-1900	T03	3858	Slight
14806 005	house		FERBANE	1860-1900	T02	3859	Slight
14801 010	country house	Ballycumber House	BALLYCUMBER	1625-1630	T15	3862	Slight
14806 001	bridge	Ferbane Bridge	FERBANE, GALLEN	1930-1935	T03	3897	Slight
14806 016	church/chapel	Catholic Church of the Immaculate Conception	FERBANE	1890-1900	T02	3919	Slight
14806 002	parochial hall	Saint Mary's Parochial Hall	GALLEN	1930-1970	T03	3936	Slight
14801 012	folly	Ballycumber House	BALLYCUMBER	1800-1850	T15	3944	Slight
14806 003	house	Gallen Lodge	GALLEN	1860-1880	T03	3953	Slight
14806 017	presbytery/parochial/curate's house	Catholic Church of the Immaculate Conception	FERBANE	1860-1900	T02	3972	Slight
14806 018	railway station	Ferbane Railway Station	GALLEN	1880-1885	T03	4110	Not Significant
14806 019	country house	Gallen Priory	GALLEN	1920-1930	T03	4132	Not Significant
14908 008	farmhouse		BALLYBRUNCULLIN	1780-1820	T15	4469	Not Significant
14908 009	church/chapel	Saint Patrick's Catholic Church	KILPATRICK	1820-1860	T15	4680	Not Significant

NIAH REG.	TYPE.	NAME	TOWNLAND	DATE	TURBINE	DISTANCE TO TURBINE (m)	Theoretical Significance of Effect
14906 002	country house	The Doon	DOON DEMESNE	1790-1820	T10	4982	Not Significant

Table 13-14: Table of potential effects on setting of Historic Gardens within 5km of the nearest proposed turbine.

NAME	ITM E	ITM N	TURBINE	DISTANCE	Theoretical Significance of Effect
Castle Armstrong	617847	729827	T15	935	Moderate
Hollybrook House	618146	730527	T15	1685	Moderate
Ballylin House	612548	726328	T01	1954	Moderate
Kilnagarnagh House	613647	729627	T10	2083	Slight
Bellair House	618546	731827	T15	3045	Slight
Corbeg House	611648	729627	T01	3403	Not Significant
Moorock House	619546	732327	T15	3894	Slight
Prospect House	620446	731827	T15	4020	Not Significant
Kilmore House	610948	724728	T02	4169	Not Significant
Gallen House	611548	723729	T03	4268	Not Significant
Birdville House	621146	731927	T15	4594	Not Significant
Doon House	611248	731627	T10	4994	Not Significant

Mitigation Measures

No mitigation proposed.

Residual Effect

The residual effects will be the same as those identified in the table of Potential Effects and as discussed above.

Significance of Effects

The operational phase will not have any significant effects on NIAH structures or Historic Gardens. The overall significance of effects is Not Significant.

13.3.4.9 Items of Local Cultural Heritage Merit

A small settlement (CH1) is located within the Proposed Project site on an island south of T11. The settlement is shown on the available historic mapping and field survey confirmed that the ruinous remains of a stone structure and associated walls are extant in the area of the settlement. According to local information this structure is known as the house at Derryvane and was used during the War of Independence 1919-1921 as an unofficial field hospital by the IRA Volunteers (<https://www.ouririshheritage.org/> website accessed on 12th August 2025). The settlement (CH1) is located c. 287m south-west of T11 and is currently surrounded by mature trees and scrub which screen this area from view. Consequently, while the ruinous structure is upstanding it is not readily visible given the presence of natural screening. The introduction of the Proposed Project will result in a change to the wider setting of CH1, however, its immediate setting will not be affected. In this regard the overall significance of effects is considered to be Not Significant, Negative, Long Term.

13.4 Cumulative Effects

A cumulative effect is defined as ‘The addition of many small impacts to create one larger, more significant, impact’ (EPA 2022). Cumulative effects encompass the combined effects of multiple developments or activities on a range of receptors. In this case, the receptors are the archaeological monuments and architectural/cultural heritage sites in the vicinity of the Proposed Project. The potential cumulative effects between the Proposed Project and the other projects described in Chapter 2 of the EIAR, hereafter referred to as the other projects, have been considered in terms of effects on archaeology and cultural heritage.

The other projects considered in relation to the potential for in combination effects arising from construction, operational and decommissioning phases of the Proposed Project and for which all relevant data was reviewed include those listed below.

13.4.1 Non-Wind Farm Projects within 20km

A list of all extant planning applications within 20km of the proposed turbines was considered in terms of cumulative effects. The majority of these applications comprise agricultural and residential developments such as single dwelling houses, and agricultural buildings in addition to other larger developments such as quarries, larger residential developments, solar PV developments, etc. Such developments if located in proximity to archaeological monuments or other cultural heritage assets may have the potential to directly or indirectly affect such features. It is considered, however, that the planning authority would have regard to the protection of any known or unknown cultural heritage sites through the requirement for assessments or implementation of appropriate mitigation measures through the planning process or the discharge of conditions attached to a grant of planning permission, where relevant.

The implementation of the Cutaway Bog Decommissioning and Rehabilitation Plan (Draft Rehabilitation Plan, Appendix 2-4) in conjunction with the construction, operation and decommissioning of the Proposed Project is also considered cumulatively. It is the intention of BnM to integrate the peatland remedial measures associated with the Draft Rehabilitation Plan with the operation of the Proposed Project. The key objectives of the Draft Rehabilitation Plan are environmental stabilisation and re-wetting of the cutaway areas will occur between and surrounding the Proposed Wind Farm infrastructure where appropriate. Overall, there are no significant negative cumulative effects when considering the Proposed Project in combination with the Draft Rehabilitation Plan as mitigation measures (as detailed in Section 2.10.2.3 of Chapter 2) will be implemented which will ameliorate or negate potential direct effects to recorded monuments or potential sub-surface archaeology. The effects of the historical industrial peat extraction carried out in Lemanaghan Bog carried out by BnM up to 2020, and assessed in the planning application that was submitted to An Coimisiún Pleanála (Case Ref: SU19.323676) is also considered cumulatively regarding potential effects

to recorded monuments and sub-surface archaeology (see Section 13.4.3.1.1 and Section 13.4.3.1.2 below).

13.4.2 Other Wind Farms

A number of other existing, permitted or proposed wind farms are located within 25km of the proposed turbines as detailed in Table 2-3 in Chapter 2: Background to the Proposed Project.

13.4.3 Cumulative Effects (Direct Effects – Construction Phase)

The interaction between other projects and the Proposed Project has been considered in order to assess Cumulative Effects. These include wind farms within 25km of the proposed turbines, the Draft Rehabilitation Plan (Appendix 2-4) for the site and the industrial peat extraction carried out up to 2020. A remedial EIAR (EIAR) was produced as part of the application for substitute consent on Lemanaghan Bog (Case Ref: SU19.323676) to assess the potential effects of the historical industrial peat extraction on the recorded and unrecorded cultural heritage resource. Direct negative effects to aspects of the cultural heritage resource, including recorded monuments and potential sub-surface archaeology, were identified in the EIAR. Such effects are considered cumulatively with the Proposed Project, however, significant cumulative effects are not anticipated (see Section 13.4.3.1.1 and 13.4.3.1.2 below). Direct effects for the Proposed Project are considered to be confined to within the site and relate to construction effects.

13.4.3.1 Cumulative effects (direct)

13.4.3.1.1 Cumulative effects to UNESCO World Heritage sites (tentative), National Monuments in State Care, Recorded Monuments, NIAH and RPS

No UNESCO WHS or those on the Tentative List, National Monuments in State Care, RPS structures or NIAH sites are located within the footprint of the Proposed Project and therefore no direct effects on these resources were identified when considering the Proposed Project alone. When the Proposed Project is considered cumulatively with other projects therefore, it does not result in direct cumulative effects since none were identified in the first place. The aforementioned cultural heritage assets are located away from the site and therefore are not capable of being directly affected by the Proposed Project. No cumulative effects will therefore occur to those aspects of the cultural heritage resource.

Four hundred and ninety-one (491) recorded monuments are located within the Proposed Project site. The majority of these monuments were identified as a result of a peatland survey carried out within the site by the Irish Archaeological Wetland Unit (IAWU) in 1993-4 as part of the Archaeological Survey of Ireland Peatland Survey. The EIAR undertaken for historical industrial peat extraction at Lemanaghan Bog concluded the following in relation to potential effects to the recorded and unrecorded archaeological resource. *‘The overall effect of the Peat Extraction Phase [July 1988 – June 2020] on archaeological finds and features within [Lemanaghan Bog], including recorded monuments, is regarded as a direct moderate negative permanent effect. Past extraction and ancillary activities, in particular from 1988 to 1993 including drains, milling, and extraction could have resulted in a significant, permanent, negative effect to sub-surface archaeological finds and features present within the peat. This potential effect is considered to be direct Moderate-Significant negative permanent effect from 1988 to 1993 and direct Slight-Moderate negative permanent effect from 1993 to 2020 due to commissioned Peatland Surveys and mitigation excavations which allowed for the identification and recording of archaeological features, and the recovery of archaeological artefacts, if present.’*

The majority of recorded monuments within the Proposed Project site have been avoided by design, meaning that the Proposed Project layout was designed to avoid the known locations of these

monuments. There are a number of instances, however, where Proposed Project infrastructure interacts with the location of recorded monuments. Direct effects to these recorded monuments will be avoided through the implementation of appropriate mitigation measures. In this regard, when considered cumulatively with the historical industrial peat extraction, no significant cumulative effects are identified. Similarly, direct effects to recorded monuments as a result of the Draft Rehabilitation Plan for the site will not occur through the implementation of the planning actions relating to archaeology as set out therein.

If the mitigation measures prescribed in this EIAR are implemented then cumulative direct effects to recorded monuments will not occur, regardless of the other identified cumulative projects.

13.4.3.1.2 Cumulative effects on potential sub-surface archaeology

Potential direct effects identified at the construction stage of the Proposed Project are those which may occur to hitherto unknown sub-surface archaeological finds, features or deposits. This potential effect was identified as being direct, permanent and negative. After the mitigation measures, i.e., pre-development archaeological testing and construction phase monitoring are implemented, these potential effects will be Slight and Not Significant. The overall significance of effects is therefore Slight and Not Significant.

The same potential construction stage effect could be identified for the other wind farm projects since groundworks could impact on hitherto unknown archaeological, finds, features or deposits or other cultural heritage assets. In this regard there could potentially be a cumulative effect when the Proposed Project is considered cumulatively with other wind farm sites. Mitigation measures seek to alleviate such negative effects if not remove the effect altogether and therefore there will be no significant cumulative effects on sub-surface remains.

The EIAR undertaken for historical industrial peat extraction at Lemanaghan Bog concluded the following in relation to potential effects to the recorded and unrecorded archaeological resource. *‘The overall effect of the Peat Extraction Phase on archaeological finds and features within [Lemanaghan Bog], including recorded monuments, is regarded as a direct moderate negative permanent effect. Past extraction and ancillary activities, in particular from 1988 to 1993 including drains, milling, and extraction could have resulted in a significant, permanent, negative effect to sub-surface archaeological finds and features present within the peat. This potential effect is considered to be direct Moderate-Significant negative permanent effect from 1988 to 1993 and direct Slight-Moderate negative permanent effect from 1993 to 2020 due to commissioned Peatland Surveys and mitigation excavations which allowed for the identification and recording of archaeological features, and the recovery of archaeological artefacts, if present.’* A Slight-Moderate negative effect to sub-surface archaeology was concluded in the EIAR. A Slight and Not Significant residual effect to sub-surface archaeology is concluded in this assessment for the Proposed Project given the implementation of appropriate mitigation measures, i.e. pre-development archaeological testing and construction phase monitoring. It should also be noted that the permanent footprint of the Proposed Project is approximately 3% of the overall site and considerably less ground disturbance will occur as a result of the Proposed Project in comparison to the extensive nature of the historical industrial peat extraction. In this regard, no significant cumulative effects to sub-surface archaeology are identified when the historical industrial peat extraction is considered with the Proposed Project.

The EIAR also identified the following in relation to potential effects to sub-surface archaeology as a result of ‘Remedial activities’ such as the Draft Rehabilitation Plan. *‘Remedial activities such as drain blocking or tracking over peat fields may have a negative effect on any sub-surface archaeological finds or features that may be present on or beneath the surface of the peat. This may result in a permanent, negative and significant effect, which is Significant. Since peat extraction and ancillary activities associated with Bord na Mona fall under the 2012 Archaeological Code of Practice, any potential effects may be dealt with in the same way as past peat extraction and ancillary activities. In this regard the potential residual effect on sub-surface archaeology, if present, may be permanent negative and Slight-Moderate, which is Not Significant.’* It is considered that while direct effects to sub-surface archaeology

as a result of the Draft Rehabilitation Plan for the site may occur resulting in a direct, negative and permanent effect, this effect is mitigated through the implementation of the planning actions relating to archaeology as set out therein which will result in a potential Slight-Moderate effect which is not Significant. When the Draft Rehabilitation Plan is considered cumulatively with the Proposed Project no significant cumulative effects to potential sub-surface archaeology are identified.

If the mitigation measures prescribed in this EIAR are implemented then significant cumulative direct effects to unknown sub-surface archaeology will not occur, regardless of the other identified cumulative projects.

13.4.4 Cumulative Effects (Indirect Effects – Operational Stage)

Indirect effects on setting occur at the operational stage of the development (when turbines are operational). In this regard in order to assess overall cumulative effects on archaeology and cultural heritage, the Proposed Project is considered in the context of its operation in combination with other wind farms within 25km of the proposed turbines. See Chapter 2, section 2.10.1 for detail regarding the methodology for cumulative assessment.

13.4.4.1 UNESCO World Heritage sites (tentative)

Two UNESCO WH Tentative List sites are located within 25km of the nearest proposed turbine and comprise the Hill of Uisneach and Birr Castle and Demesne. Birr Castle and Demesne is situated c. 23km south-west of the nearest proposed turbine, T3, while the Hill of Uisneach is located c. 24km north-east of the nearest proposed turbine, T15.

The ZTV demonstrates no theoretical visibility of the proposed turbines from Birr Castle and Demesne therefore no potential visual effects to this UNESCO WH Tentative List site as a result of the Proposed Project are identified. While the ZTV demonstrates theoretical visibility of the proposed turbines from the Hill of Uisneach, given the distance of the Proposed Project to the Core and Buffer Areas the immediate setting of the Hill of Uisneach or its associated monuments will not be affected by the introduction of the proposed turbines. At this distance, the proposed turbines while visible from certain vantage points on the Hill, will not dominate the view or be visually disruptive. While the introduction of the Proposed Project will result in a change to the wider setting in which the Hill of Uisneach is located, given the intervening distance, topography and vegetation this is considered to be Imperceptible and Reversible. There are 4 no. existing, 1 no. permitted and 2 no. proposed wind farms within a 25km radius of the proposed turbines. There are also 2 no. permitted singular turbines within a 25km radius of the proposed turbines. When considered cumulatively with these other wind farm projects within 25km it is noted that the ZTV demonstrates theoretical visibility of some of the proposed Umma More Wind Farm, the existing Derrinlough Wind Farm, the existing Leabeg Wind Farm, the existing Meenwaun Wind Farm and some of the permitted Cush Wind Farm turbines. It also demonstrates theoretical visibility of two individual turbines (James Nally, Existing and Kilbeggan, Permitted). Please note, as there are no turbine locations or dimensions associated with the proposed Bellair Wind Farm in the public domain, the proposed Bellair Wind Farm is not assessed further. While there is theoretical visibility of the aforementioned existing and proposed turbines in addition to the Proposed Project turbines, the majority are located at a significant distance from the Hill of Uisneach, such as the existing Derrinlough Wind Farm which is located c. 37m to the south-west of the Hill of Uisneach. The nearest proposed turbines to the Hill of Uisneach are those of the proposed Umma More Wind Farm which are located c. 10km to the south-west of the Hill of Uisneach and over 15km north of the proposed turbines. Given the setback distances in question in addition to intervening topography and screening it is not considered that significant cumulative visual effects to the Hill of Uisneach will occur. The visual effect to the Hill of Uisneach as a result of the proposed turbines is regarded as Imperceptible and Reversible therefore when considered cumulatively with the other wind farm projects within 25km this may increase to a Long-term Not Significant Negative effect.

13.4.4.2 National Monuments

No National Monuments or those subject to a Preservation Order are located within or adjacent to the Proposed Project site. Six National Monuments in State Care and eight monuments subject to a Preservation Order are located within 15km of the nearest proposed turbine. The nearest National Monument comprises Gallen Abbey which is located c. 4.1km south-west of the nearest proposed turbine, T3 while the nearest monument subject to a Preservation Order is Coole Castle at Coole c. 4km south-west of T3. No potential visual effects to the National Monuments at Gallen Abbey, Durrow Abbey or Rahan Churches as a result of the Proposed Project including the proposed substation and Proposed Grid Connection were identified. In this regard, no potential cumulative effects will occur when considered with other wind farm projects within 25km.

Coole Castle (PO No. 49/1937) is subject to a preservation Order and comprises a tower house OF015-017— located c. 4km south-west of the nearest proposed turbine, T3. While some partial turbine visibility will occur from this location, the turbines will appear as small-scale elements in the distant background. Given the distance of the Proposed Project including the proposed substation and the Proposed Grid Connection visual effects to the immediate setting of the monument will not occur. A change to the wider setting in which the tower house is located as a result of the proposed turbines is acknowledged but is regarded as Not Significant. Potential Imperceptible visual effects to the wider setting of the National Monuments at Clonmacnoise, Clonfinlough and Bealin Cross were identified. Potential visual effects to the wider setting of monuments subject to a Preservation Order within 15km of the nearest proposed turbine range from none to Imperceptible.

When considered cumulatively with other wind farms within 25km of the Proposed Wind Farm the ZTV demonstrates theoretical visibility of the Proposed Project turbines and some of the proposed Umma More turbines, the proposed Bellair WF, the existing Derrinlough WF, the existing Leabeg WF, the existing Meenwaun turbines and some of the permitted Cush WF turbines. It also demonstrates theoretical visibility of two individual turbines (James Nally, Existing and Kilbeggan, Permitted). In this regard there is potential for cumulative effects to the wider setting of the National Monuments and those subject to a Preservation Order within the 15km study area. No cumulative effects to the immediate setting of the monuments is identified, however, as neither the Proposed Project turbines or the existing, permitted or proposed turbines are located immediately adjacent to same, and in this regard potential cumulative effects to setting are to the wider setting within which the monuments are located and are regarded as Not Significant.

13.4.4.3 Recorded Monuments

A total of one thousand and sixty-eight (1068) recorded monuments are located within 5km of the nearest proposed turbine. This number includes the 491 monuments located within the Proposed Project site with 577 monuments located outside the Proposed Project site within 5km of the nearest proposed turbine. The vast majority of the monuments within the Proposed Project site are considered to have low or no visibility in the landscape as they comprise sites that were detected during the 1993-4 Peatland Survey and which at that time were located either on the bog surface or were visible in drain sections, being partially sub-surface. No recorded cultural heritage assets are located within the footprint of the proposed 220kV substation or to the Proposed Grid Connection infrastructure. The nearest recorded monument comprises a class 2 togher OF007-343— which is situated c. 270m north-west of the proposed 220kV substation and over 100m from the nearest proposed new steel mast. It comprises a low-visibility monument which no longer has any above-ground expression.

Taking into consideration the above, while a change to the setting in which the recorded monuments are located will occur as a result of the Proposed Grid Connection this is considered to be Imperceptible.

In the case of the gravel/stone trackway OF007-350— which comprises an extant monument and is still discernible within the site, it is also considered to be a low-visibility monument and is not visible in the

landscape outside of its immediate environs. The proposed new road to T10 and T11 will be floated over the gravel/stone trackway OF007-350— which will result in a change to the immediate setting of the monument at both locations. While the road is an extant monument it is regarded as low visibility. The potential visual effect to its immediate setting where the proposed new road will cross same is regarded as Negative, Permanent and Slight. A change to the wider setting in which the trackway is located will occur as a result of the Proposed Project, however, this is considered to be Not Significant.

577 recorded monuments are located within 5km of the nearest proposed turbine outside the Proposed Project site. Of this number 265 comprise sites located within a peatland environment and consist of Roads (Class 1, 2 and 3 toghers and a road/trackway), Structures – Peatland and Post row – Peatland. While they are located in areas in which 11-15 turbines will theoretically be visible these monuments may be regarded as having no or low visibility which reduces or negates potential visual effects. In this regard while a change to the wider setting in which these monuments are located will occur as a result of the Proposed Project this is considered to be Imperceptible.

An additional 152 recorded monuments within 5km of the nearest proposed turbine comprise the cross slabs and inscribed stones at Gallen Abbey c. 4km to the south-west of the nearest proposed turbine. The ZTV demonstrates theoretical visibility of 11-15 proposed turbines from this location. A photowire captured from north of the cemetery at Gallen (PWVP-N), however, illustrates that the proposed turbines are located beyond a dense stretch of forestry and are not visible from this location. In this regard, no potential visual effects to these monuments are identified.

The potential visual effect on the remaining recorded monuments outside the Proposed Project site and excluding those peatland sites and cross slabs/stones at Gallen Abbey ranges from Imperceptible to Moderate.

When considered cumulatively with other wind farms within 25km of the proposed turbines the ZTV demonstrates theoretical visibility of the proposed turbines and some of the proposed Umma More turbines, the proposed Bellair WF, the existing Derrinlough WF, the existing Leabeg WF, the existing Meenwaun turbines and some of the permitted Cush WF turbines. It also demonstrates theoretical visibility of two individual turbines (James Nally, Existing and Kilbeggan, Permitted). In this regard there is potential for cumulative effects to the wider setting of the recorded monuments within the 5km study area outside the Proposed Project site and excluding those monuments discussed above. No cumulative effects to the immediate setting of the monuments are identified. Given the distance of the majority of the proposed, permitted and existing turbines from the recorded monuments in the 5km study area no significant cumulative effects to their wider setting are anticipated.

The Proposed Project will have no significant cumulative effects on recorded monuments when considered in combination with other plans or projects in the vicinity of the site.

13.4.4.4 Archaeological Landscapes

The Proposed Project is not located in or immediately adjacent to areas which have been designated as Archaeological Landscapes. Potential visual effects to any such landscapes will therefore not occur. In this regard no potential cumulative effects will occur when the Proposed Project is considered with other wind farms within 25km.

13.4.4.5 Protected Structures and NIAH

A total of 47 Protected Structures are located within 5km of the nearest proposed turbine, at least 17 of which are located in Ferbane village to the south-west of the Proposed Project site. No Protected Structures are located within the footprint of or in close proximity to the proposed 220kV substation or Proposed Grid Connection infrastructure located under the existing OHL. The nearest Protected Structure is located c. 1.5km to the south-east of the proposed 220kV substation. The overall

significance of effects to the setting of Protected Structures as a result of the Proposed Project ranges from Not Significant to Moderate.

A total of 42 NIAH structures are located within 5km of the nearest proposed turbine. At least 18 of the structures are located in Ferbane village to the south-west of the Proposed Project site. No NIAH structures or historic gardens are located within the footprint of or in close proximity to the proposed 220kV substation or Proposed Grid Connection infrastructure located under the existing OHL. The nearest NIAH structure is located c. 1.5km to the south-east of the proposed 220kV substation. Twelve historic gardens are located within 5km of the nearest proposed turbine.

When considered cumulatively with other wind farms within 25km of the proposed turbines the ZTV demonstrates theoretical visibility of the Proposed Project turbines and some of the proposed Umma More turbines, the proposed Bellair WF, the existing Derrinlough WF, the existing Leabeg WF, the existing Meenwaun turbines and some of the permitted Cush WF turbines. It also demonstrates theoretical visibility of two individual turbines (James Nally, Existing and Kilbeggan, Permitted). In this regard there is potential for cumulative effects to the wider setting of the Protected Structures, NIAH structures and Historic Gardens within the 5km study area. No cumulative effects to the immediate setting of the structures or gardens are identified. Given the distance of the majority of the proposed, permitted and existing turbines from the NIAH structures and gardens in the 5km study area no significant cumulative effects to their wider setting are anticipated.

The Proposed Project will have no significant cumulative effects on Protected Structures and NIAH structures and gardens when considered in combination with other plans or projects in the vicinity of the site.

13.4.4.6 Items of Local Cultural Heritage Merit

A small settlement (CH1) is located within the Proposed Project site on an island south of T11. The settlement is located c. 287m south-west of T11 and is currently surrounded by mature trees and scrub which screen this area from view. Consequently, while the ruinous structure is upstanding it is not readily visible given the presence of natural screening. The introduction of the Proposed Project will result in a change to the wider setting of CH1, however, its immediate setting will not be affected. In this regard the overall significance of effects is considered to be Not Significant.

When considered cumulatively with other wind farms within 25km of the proposed turbines the ZTV demonstrates theoretical visibility of the Proposed Project turbines and some of the proposed Umma More turbines, the proposed Bellair WF, the existing Derrinlough WF, the existing Leabeg WF, the existing Meenwaun turbines and some of the permitted Cush WF turbines. It also demonstrates theoretical visibility of two individual turbines (James Nally, Existing and Kilbeggan, Permitted). In this regard there is potential for cumulative effects to the wider setting of CH1. No cumulative effects to the immediate setting of CH1 are identified. Given the distance of the majority of the proposed, permitted and existing turbines from CH1 no significant cumulative effects to its wider setting are anticipated.

13.5 Decommissioning Phase

The decommissioning phase of the Proposed Wind Farm will be completed in compliance with the requirements of the Rehabilitation Plan for Lemanaghan Bog as appropriate. There will be no significant potential effects to the archaeological, architectural and cultural heritage environment during the decommissioning phase of the Proposed Project. Any potential direct effects will already have been resolved through mitigation measures during the construction phase. Therefore, there is no potential for any cumulative effects to arise during the decommissioning phase.

Conclusion

This Cultural Heritage chapter was prepared by Tobar Archaeological Services Ltd. It presents the results of an archaeological, architectural and cultural heritage impact assessment of the Proposed Project. The assessment was based on desktop research, field surveys, GIS based mapping, ZTV and was also assisted by representative photomontages and photowire images. A detailed examination of the available baseline data was undertaken in addition to a comprehensive site inspection. The latter comprised a walk-over survey of the Proposed Project site, any proposed infrastructure therein and proposed ecological enhancement areas.

Where potential effects have been identified, such as to potential sub-surface archaeology appropriate mitigation measures have been recommended in order to minimise any such effects. Proposed mitigation includes pre-development testing where peat depths allow, archaeological monitoring of construction stage ground works and any further geotechnical site investigations, floating the proposed new roads and associated cabling where they cross the extant gravel/stone trackway OF007-350— and archaeological monitoring of all construction stage ground works.

Potential indirect effects on the setting of any UNESCO World Heritage Sites and those on a Tentative List within 25km, National Monuments within 15km, recorded monuments within 5km and RPS/NIAH structures within 5km were included in order to assess potential effects on setting in the wider landscape. The ZTV demonstrates theoretical visibility of the proposed turbines from the majority of cultural heritage assets within 5km. Both the distance to the nearest turbine and the number of turbines visible from each cultural heritage asset were used to arrive a level of potential effect on setting. Potential effects on setting are based on the precautionary scenario in that natural screening, boundaries, buildings and vegetation are not taken into account in the ZTV model and in reality, the potential effect is likely to be less. Furthermore, many of these monuments may not be readily discernible in the landscape which further ameliorates effects on setting.

An assessment of potential cumulative effects was also undertaken taking into consideration other planning applications, the historical industrial peat extraction at Lemanaghan Bog, and identified cumulative wind farm projects within 25km. While some potential cumulative visual effects to the wider setting of cultural heritage assets are possible when considered with the identified cumulative wind farm projects, no significant cumulative effects have been identified and no cumulative effects to the immediate setting of cultural heritage assets will occur.

No significant direct or indirect effects to the recorded cultural heritage resource as a result of the Proposed Project have been identified. Where potential direct effects to sub-surface archaeology have been identified appropriate mitigation measures are proposed in order to ameliorate this potential effect.

EIA Classification Summary

Please see the below table for a summary of all identified impacts for the Proposed Project relating to cultural heritage.

Table 13-15 Impact Assessment Classification Summary

Cultural Heritage	Pre-Mitigation Effect	Section Reference	Residual Effect	Significant
Construction Phase				
UNESCO WHS and those on the Tentative List	N/A	Section 13.3.3.1	N/A	N/A

National Monuments and those Subject to a Preservation Order	N/A	Section 13.3.3.2	N/A	N/A
Recorded Monuments	Permanent, Significant, Negative	Section 13.3.3.3	Permanent, Slight, Negative	Not Significant
Previously Unrecorded Monuments	N/A	Section 13.3.3.4	N/A	N/A
Sub-surface Archaeology	Permanent, Significant, Negative	Section 13.3.3.5	Long term, Slight, Negative	Not Significant
Protected Structures	N/A	Section 13.3.3.6	N/A	N/A
NIAH Structures and Historic Gardens	N/A	Section 13.3.3.7	N/A	N/A
Items of Local Cultural Heritage Merit	N/A	Section 13.3.3.8	N/A	N/A
Operational Phase				
UNESCO WHS and those on the Tentative List	Long-Term, Imperceptible, Negative	Section 13.3.4.1	Long-Term, Imperceptible, Negative	Not Significant
National Monuments and those Subject to a Preservation Order	Long Term, Imperceptible, Negative	Section 13.3.4.2	Long Term, Imperceptible, Negative	Not Significant
Recorded Monuments	Permanent/Long Term, Imperceptible-Moderate, Negative	Section 13.3.4.3	Permanent/Long Term, Imperceptible-Moderate, Negative	Not Significant
Previously Unrecorded Monuments	N/A	Section 13.3.4.4	N/A	N/A
Sub-surface Archaeology	N/A	Section 13.3.4.5	N/A	N/A
Archaeological Landscapes	N/A	Section 13.3.4.6	N/A	N/A
Protected Structures	Long Term, Not Significant-Moderate, Negative	Section 13.3.4.7	Long Term, Not Significant-Moderate, Negative	Not Significant

NIAH Structures and Historic Gardens	Long Term, Not Significant-Moderate, Negative	Section 13.3.4.8	Long Term, Not Significant-Moderate, Negative	Not Significant
Items of Local Cultural Heritage Merit	Long Term, Not Significant, Negative	Section 13.3.4.9	Long Term, Not Significant, Negative	Not Significant
Decommissioning Phase				
N/A	N/A	Section 13.5	N/A	N/A